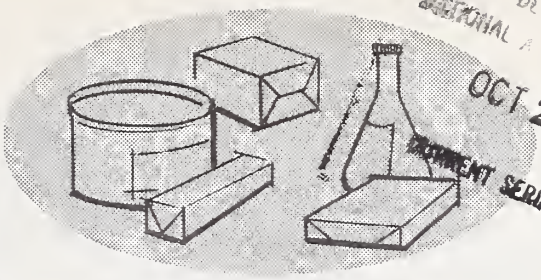
Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

1.9
Ec 752F
FOS
cop 2



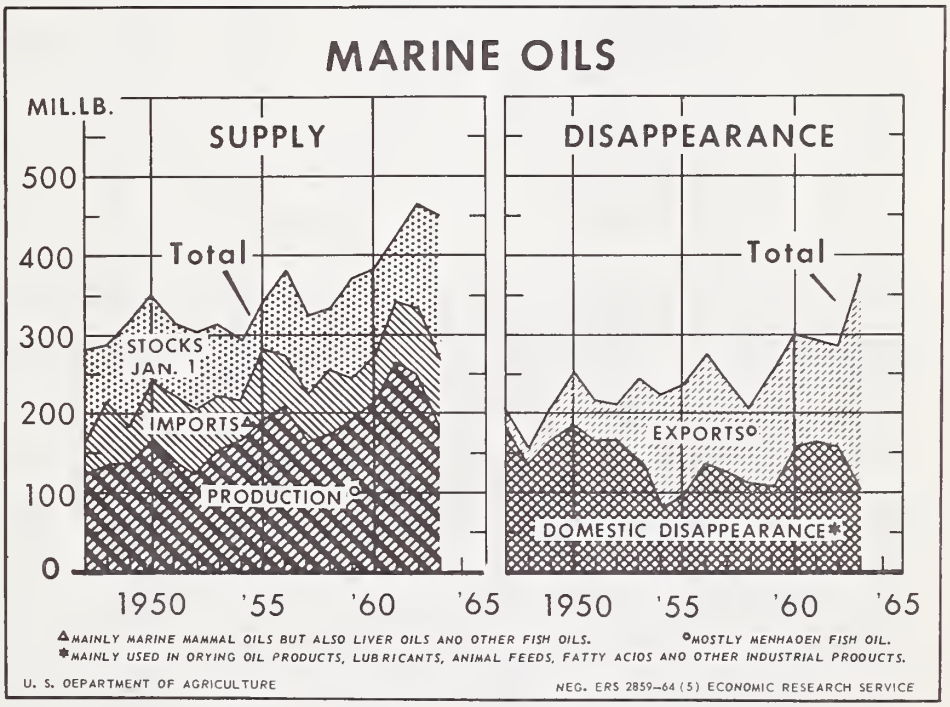
U. S. DEPT. OF AGRICULTURE
NATIONAL AGRICULTURAL LIBRARY
OCT 29 1964
CURRENT SERIAL RECORDS

FATS and OILS SITUATION

FOS-223 For Release June 5, P. M. MAY 1964

U. S. supplies of marine oils increased from a postwar low of 281 million pounds in 1947 to over 450 million in recent years, mainly due to an uptrend in production. Output dropped sharply in 1963 because of a poor fishing season for menhaden, the leading marine oil produced in the United States.

Marine oil exports have expanded greatly in the postwar era, from 21 million pounds in 1947 to 274 million in 1963. Record U. S. exports in 1963 resulted from the sharp reduction in world output of marine oils and rising prices. Domestic disappearance, which has fluctuated considerably during this period, fell off sharply in 1963, apparently because of increased prices for menhaden oil. (See page 29).



IN THIS ISSUE

U. S. Marine Oil Trends (Page 29)

Nonfood Fat Consumption In 1963 (Page 24)

Published five times a year by
ECONOMIC RESEARCH SERVICE, U. S. DEPARTMENT OF AGRICULTURE

Table 1.--Wholesale and retail prices per pound for fats and oils

Item	April 1962	April 1963	1964 February	1964 March	1964 April
	Cents	Cents	Cents	Cents	Cents
Wholesale Prices:					
Butter, creamery, Grade A, (92-score) bulk, New York	58.6	58.8	58.8	58.8	58.7
Butter, creamery, Grade A, (92-score) bulk, Chicago	58.0	58.0	58.0	58.0	58.0
Butter, creamery, Grade A, (92-score) prints, San Francisco	70.8	68.8	70.8	70.8	70.8
Castor oil, dehydrated, tanks, New York	25.1	25.1	25.1	25.1	25.1
Castor oil, No. 1, Brazilian, tanks, imported, New York	16.7	15.2	14.5	14.6	14.8
Castor oil, No. 1, tanks, f.o.b., New Jersey mills	20.0	20.0	19.0	19.0	19.0
Castor oil, No. 3, domestic, tanks, carlots, f.o.b. New York	19.3	19.3	18.3	18.3	18.3
Coconut oil, crude, tank cars, Pacific Coast, f.o.b. mills 1/	10.7	12.0	11.9	12.3	12.9
Coconut oil, crude, tanks, f.o.b. New York, 1/	12.1	12.5	12.7	12.9	13.4
Coconut oil, refined, drums, l.c.l., New York 1/	17.0	16.0	16.8	16.9	17.2
Cod oil, spot, drums, New York	8.1	8.1	9.8	10.5	10.5
Codliver oil, medicinal, U. S. P., barrels, New York	18.2	16.9	18.2	18.2	18.2
Corn oil, crude, tank cars, f.o.b. Midwest mills	14.4	12.3	9.9	10.0	10.3
Corn oil, refined, tanks, New York	17.9	15.5	12.8	13.0	12.1
Cottonseed oil, crude, tank cars, f.o.b., S. E. mills	12.4	10.4	9.1	9.4	9.8
Cottonseed oil, crude, tank cars, f.o.b., Valley	12.3	10.3	9.0	9.5	9.8
Cottonseed oil, crude, tank cars, f.o.b., Texas	12.2	10.2	9.2	9.6	9.9
Cottonseed oil, p.s.y., bleachable, tank cars, New York 2/	14.0	12.5	10.8	11.1	11.0
Cottonseed oil, refined, tanks, New York	15.4	13.3	11.8	12.3	12.6
Cottonseed-oil foots, raw (50 percent T.F.A.) delivered East	1.8	1.6	1.6	1.6	1.6
Degras, Lanolin technical, drums, New York	21.0	21.0	28.0	29.5	31.5
Glycerin, soaplye, tanks, New York	12.0	10.5	13.4	13.5	13.7
Grease, A white, tank cars, delivered Chicago	5.7	4.9	5.8	6.0	6.1
Grease, B white, delivered, Chicago	5.2	4.7	5.3	5.6	5.6
Grease, yellow, delivered, Chicago	4.9	4.4	5.1	5.4	5.5
Grease oil, extra No. 1, drums, Chicago	12.0	12.0	12.0	12.0	12.0
Lard, loose, tank cars, Chicago	8.4	7.5	9.3	9.0	9.2
Lard, prime steam, tierces, Chicago	9.5	8.2	9.2	8.9	9.1
Lard, refined, 1-pound cartons, Chicago	14.2	13.8	14.5	14.4	14.5
Lard, refined, 1-pound cartons, New York	13.6	13.5	14.8	14.2	14.2
Linseed oil, raw, tank cars, Minneapolis	15.2	12.7	13.3	13.3	13.3
Linseed oil, raw, tanks, New York	16.3	13.8	14.4	14.4	14.4
Margarine, colored, delivered, Eastern U. S.	27.0	23.8	23.8	23.8	23.8
Margarine, yellow, quarters, f.o.b., Chicago	26.2	24.8	25.2	25.2	25.2
Margarine, white, domestic vegetable, Chicago	25.5	23.2	23.2	23.2	23.2
Menhaden oil, crude, tanks, f.o.b. Baltimore	5.0	5.7	8.3	8.4	8.5
Menhaden oil, light pressed, tanks, New York	10.8	9.0	10.0	10.0	10.0
Neat's foot oil, 30°, drums, carlots, New York	27.0	27.0	27.0	27.0	27.0
Oiticica oil, drums, f.o.b. New York	18.8	29.5	30.0	21.0	20.6
Oiticica oil, tanks, New York	16.8	27.0	28.8	19.0	18.7
Oleo oil, extra, drums, Chicago	16.8	16.2	17.8	17.8	17.8
Olive oil, imported, edible, drums, New York	33.3	63.5	31.7	31.7	30.4
Palm oil, clarified, drums, f.o.b. New York 3/	14.0	14.0	14.2	14.2	14.2
Palm kernel oil, bulk, c.i.f., New York 3/	11.0	11.8	12.9	12.8	12.9
Peanut oil, crude, tank cars, f.o.b. S. E. mills	16.5	11.9	9.9	10.6	11.1
Peanut oil, refined, tanks, New York	19.2	14.9	12.6	13.2	13.9
Rapeseed oil, refined (denatured), tanks, New York	14.8	13.5	14.0	14.0	14.0
Safflower oil, nonbreak, tanks, East Coast	19.2	18.0	12.0	12.0	12.0
Safflower oil, drums, East Coast	21.2	20.0	14.0	14.0	14.0
Sesame oil, refined, drums, New York	37.0	37.0	33.0	33.0	33.0
Shortening, Cottonseed, hydrogenated, 10-drum lots, New York	20.8	20.2	21.2	21.2	21.2
Soybean oil, crude, tank cars, f.o.b., Decatur	9.9	9.1	8.0	8.1	7.9
Soybean oil, refined, tanks, New York	12.1	11.3	10.1	10.2	10.2
Soybean oil, clarified, tanks, New York	11.7	11.0	9.7	9.8	9.6
Sperm oil, natural, 45°, drums, New York	16.5	17.5	17.5	17.5	17.5
Sperm oil, bleached, winter 38°, drums, New York	17.5	18.5	18.5	18.5	18.5
Tall oil, crude, tanks, works	3.5	3.5	3.6	3.6	3.6
Tall oil, refined, tanks, works	7.5	7.5	7.5	7.5	7.5
Tallow, edible, loose, Chicago	8.9	7.5	8.6	8.4	8.6
Tallow, inedible, packers' prime, c.a.f. delivered Chicago	5.5	5.1	5.6	5.8	5.9
Tallow, inedible, bleachable fancy, delivered, Chicago	5.7	5.4	5.8	6.0	6.1
Tallow, No. 1, inedible, delivered, Chicago	4.9	4.4	5.1	5.3	5.4
Tallow, special, inedible, tanks, delivered, New York	5.8	5.4	5.8	6.0	6.0
Tung oil, imported, drums, f.o.b. New York	38.9	41.1	30.1	28.7	27.6
Tung oil, tanks, New York	36.9	39.1	28.1	26.6	25.6
Tung oil, domestic, tanks, f.o.b. mills	36.7	39.1	27.9	26.5	25.7
Retail prices 4/					
Butter	75.3	74.8	75.2	75.3	75.2
Margarine	28.8	27.4	27.4	27.5	27.7
Lard	20.1	19.9	20.1	20.1	20.0
Shortening	30.5	28.3	27.4	27.4	27.4
Salad Dressing	38.2	37.8	38.5	38.5	38.4
Peanut Butter	57.2	57.6	57.8	57.9	57.9

1/ 3-cent processing tax suspended during October 1957-June 1966. 2/ Nearby futures. 3/ 3-cent processing tax suspended during July 1959-June 1966. 4/ Leading cities.

THE FATS AND OILS SITUATION

Approved by the Outlook and Situation Board, May 27, 1964

CONTENTS

	Page		Page
Summary	3	Peanuts	17
Review and Outlook:		Flaxseed	19
Soybeans	4	Inedible Tallow	21
Cottonseed	8	Tung Oil	23
Soybean and Cottonseed Oils	11	Nonfood Fat Consumption in 1963	24
Corn Oil	13	Marine Oil Trends	29
Lard	15	List of Tables	44

SUMMARY

Normal seasonal declines in output and domestic disappearance and a continuing strong export demand highlight the outlook for food fats and oils in the second half (April-September) of the 1963-64 marketing year. Production may be slightly below the year-earlier level, and domestic use may be up slightly.

However, a buildup in soybean stocks is expected to cause a slight increase from a year earlier in carryover stocks of food fats next October 1. Stocks on April 1, 1964 (including the oil equivalent of soybeans) were up 7 percent from the same date last year.

Soybean prices to farmers have been declining contra-seasonally, from $2.66 per bushel in November 1963 to $2.36 in May 1964. In the same period a year earlier, prices advanced from $2.30 per bushel to $2.47. This season's price pattern developed from early prospects last fall for a continuing uptrend in soybean usage in 1963-64, partly as a result of Russia entering some commodity markets. Subsequently, however, soybean demand did not increase but declined, mainly due to lower oil prices than a year earlier and reduced domestic consumption of soybean meal. Soybean prices through most of the summer are expected to vary within a narrow range, averaging slightly under the $2.45 received in the summer of 1963. Soybean prices in September usually decline as new-crop beans become available.

Soybean crushings so far in 1963-64 are down 9 percent from the year before. Processors' margins (the spread between the prices paid by processors for soybeans and the combined value of soybean products) have averaged only 4 cents per bushel. This compares with 9 cents for the entire 1962-63 season and 16 cents for the 1957-61 average. The squeeze on margins has developed because of high soybean prices in relation to low prices for oil and recent declines in

meal prices. Soybean crushings for the entire 1963-64 marketing year are estimated at around 440 million bushels, down about 35 million from the peak in 1962-63.

Soybean exports are currently running 4 percent ahead of last year, and for the entire 1963-64 season are expected to total around 190 million bushels, up 10 million from 1962-63.

Based on the above estimates of crushings and exports, carryover stocks of old-crop soybeans on October 1, 1964, would be around 45 million bushels compared to the small carryover of 15 million bushels on October 1, 1963. A large part of the carryover (30-35 million bushels) likely will be in CCC hands as the trade reduces commercial stocks of old-crop beans to a minimum in anticipation of lower prices for new-crop soybeans. The 1964 national average loan rate for soybeans has been set at $2.25 per bushel, unchanged from 1963.

Cottonseed oil prices (crude, Valley) generally declined from a monthly average of 10.2 cents per pound in August 1963 to 9.0 cents in January and February 1964, then increased to 10.5 cents in late-May 1964. This price turnabout since February was largely in response to CCC purchases of cottonseed oil under the 1963 price support program for cottonseed. Starting in February 1964 through May 25, the Corporation had acquired 92 million pounds of cottonseed oil; additional purchases are likely. Moreover, prices paid by CCC for cottonseed oil have been increasing since February. This has been necessary to offset declines in cottonseed meal prices, which have dropped from almost $70 per ton (bulk, Memphis) in January 1964 to close to $50 per ton in late-May, and a sharp drop in cottonseed hull prices.

The recent strengthening in cottonseed oil prices has helped provide some firmness in the soybean oil market (prices of crude soybean oil at Decatur increased from $7\frac{3}{4}$ cents per pound in early April to 8.5 cents in late May). Other factors have been the decline in soybean crushings and a pickup in programming of edible oils for export under P.L. 480. Cottonseed oil prices during the summer probably will average above the July-September 1963 level of 10.3 cents per pound, but cottonseed meal prices likely will average well below the $69.50 per ton of a year earlier.

REVIEW AND OUTLOOK

Soybean Prices May Slip A Little Further; 1963-64 Crushings Placed at 440 Million Bushels

Soybean prices to farmers have declined contra-seasonally from $2.66 per bushel in mid-November 1963 to $2.36 in mid May 1964, averaging $2.55 per bushel for the October-May period compared to $2.40 a year earlier. This price pattern developed mainly from the early-season prospects of a continuing uptrend in soybean usage, partly as a result of Russia entering some commodity markets. Subsequently, however, the demand for soybeans did not increase as anticipated

but declined, mainly due to lower oil prices than a year earlier and reduced domestic consumption of soybean meal. Soybean prices through most of the summer are expected to vary within a narrow range, averaging slightly under the $2.45 received in the summer of 1963. Soybean prices in September usually decline as new-crop beans become available.

As of May 1, 1964, about 61 million bushels of 1963-crop soybeans remained under CCC loan compared to 45 million a year earlier. Farmers have until July 31, 1964, to decide whether to redeem the loans or deliver their beans to CCC. With little prospect for price improvements, CCC will probably acquire a substantial quantity of soybeans now under support.

The minimum CCC sales price for soybeans through September 1964 will be the county support rate for 1963-crop No. 2 soybeans plus 19 cents per bushel. The 19-cent markup includes (1) an adjustment factor to compensate for the difference in premiums and discounts under the loan program and under the trade-buying basis, (2) load-in charges of 5 cents per bushel, and (3) carrying charges. The minimum sales price applies to soybeans-in-store meeting quality standards for the maximum value on the trade buying basis (substantially No. 1 quality) and is subject to trade discounts for lower qualities. Value of paid-in-freight also will be added to the price as applicable. The actual CCC sales price will be the higher of the market price or the computed minimum price.

Soybean crushings in October 1963-April 1964 totaled 259 million bushels, 26 million below the record level a year earlier. Crushings for the entire 1963-64 marketing year are now placed at about 440 million bushels, about 35 million below last year's peak. The average monthly grind is projected at 36 million bushels during May-September 1964, compared with 38 million in the same period last year.

Factors responsible for the slowdown in the soybean crush this year are the small margins processors have been receiving for soybean oil and meal relative to soybean prices, the record supply of edible vegetable oils, and the significant drop in the demand for soybean meal--due mainly to unfavorable livestock-feed price ratios.

Oil yield per bushel of soybeans crushed so far this marketing year has averaged 10.9 pounds compared with 10.7 during October 1962-April 1963. Meal output, at 47.7 pounds per bushel, is about 1.0 pound higher than last year.

Soybean Oil Stocks Continue Above Last Year Even With Cutback in Output

Supplies of soybean oil continue well in excess of market outlets, and prices are expected to average slightly below last year. Stocks of soybean oil (crude and refined) on April 30, 1964, totaled 922 million pounds, 17 percent more than the 788 million pounds on hand April 30, 1963.

The total 1963-64 supply of soybean oil is now placed at 5.7 billion pounds, about the same as the year before; larger carryin stocks have been about offset by reduced output. Domestic use is expected to total nearly 3.8 billion pounds and exports around 1.1 billion pounds. The combined disappearance of nearly 4.9 billion pounds would be slightly higher than the year before, leaving carryover stocks of soybean oil on October 1, 1964, under 0.9 billion pounds (crude and refined), slightly less than last year. This compares with a soybean oil inventory of 0.6 billion pounds on October 1, 1962, and the 1957-60 average of approximately 0.3 billion pounds (table 2).

Monthly average prices of soybean oil (crude, Decatur) declined from 9.2 cents per pound in October 1963 to 7.9 cents in April 1964, then increased to 8.5 cents in May. Prices averaged 8.4 cents for the entire period compared with 9.0 cents in October 1962-May 1963. For the rest of the marketing year, prices probably will not fluctuate much and will average around the May 1964 level. This compares with the year-earlier level of 8.7 cents per pound.

Domestic Disappearance of Soybean Meal Off 7 Percent; Prices Drop Sharply This Spring

Domestic disappearance of soybean meal during October 1963-March 1964 totaled 4,658,200 tons, down 7 percent from the 5,015,900 tons consumed in the same 6 months in 1962-63. The primary reason for this drop is that the livestock industry has not consumed as much feed as a year ago. Feeding ratios have been relatively unfavorable (higher feed prices, lower livestock prices).

The total 1963-64 supply of soybean meal is placed at 10.7 million tons compared with 11.2 million a year ago. Domestic use is expected to total 9.1 million tons, about 0.5 million tons or 5 percent less than in 1962-63. Exports for 1963-64 are now estimated to be slightly below last year. Stocks of soybean meal at processors' plants on April 30, 1964, totaled 158,500 tons compared with 106,100 a year earlier.

Monthly average prices of soybean meal (44 percent protein, bulk, Decatur) rose from $73.50 per ton in October 1963 to $77.50 in January 1964, then declined steadily to $64.00 in May 1964. The 8-month average was $73 per ton compared with $70 the same period in 1962-63. Prices during the remainder of the marketing year probably will average somewhat below the June-September 1963 level of $73 per ton, since domestic demand and exports likely will be less than last year.

Soybean Exports in 1963-64 Placed at 190 Million Bushels; Carryover Forecast at 45 Million Bushels

Soybean exports (based on inspection data) from October 1, 1963, through May 22, 1964, totaled 136 million bushels, about 7 million above the record movement in the same period of the 1962-63 season. Exports for the entire

Table 2.--Soybeans, Soybean Oil and Meal: Supply and disposition, crop years, 1956-64

Item	Year beginning October								
	1956	1957	1958	1959	1960	1961	1962	1963 1/	1964 2/
SOYBEANS	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.
Total availabilities*	452.5	493.3	604.8	593.0	577.5	697.1	716.3	716.5	
Disposition									
Seed, feed and residual	41.2	32.9	31.4	35.0	39.2	47.5	46.4	42	
October-April:									
Crushings	192.8	206.2	242.7	238.6	252.1	266.3	285.0	259	
Exports	59.8	59.2	69.2	83.9	92.7	104.7	120.0	127	
May 1, supply remaining	158.7	195.0	261.5	235.5	193.5	278.6	264.9	289	
May-September:									
Crushings	123.1	147.6	158.5	154.8	150.1	172.5	189.5	181	
Exports	25.6	26.3	40.9	57.5	37.4	48.5	60.3	63	
Season totals									
Crushings	316.0	353.8	401.2	393.4	402.2	438.8	474.5	440	
Exports	85.4	85.5	110.1	141.4	130.1	153.2	180.3	190	
Ending stocks									
Commercial	4.7	7.2	4.2	14.2	6.0	6.6	15.1	10	
Reseal	---	---	13.7	---	---	11.0	---	---	
CCC	5.2	13.9	44.2	9.0	---	40.0	---	35	
Total	9.9	21.1	62.1	23.2	6.0	57.6	15.1	45	
Price per bushel	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
Support	2.15	2.09	2.09	1.85	1.85	2.30	2.25	2.25	2.25
Received by farmers	2.18	2.07	2.00	1.96	2.13	2.28	2.34	2/2.54	
SOYBEAN OIL	Soybean Oil								
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
Supply									
Stocks, October 1	227	286	281	298	308	677	618	920	
Production	3,431	3,800	4,251	4,338	4,420	4,790	5,091	4/4,800	
Total supply	3,658	4,086	4,532	4,636	4,728	5,467	5,709	5,720	
Disposition									
October-March:									
Domestic disappearance	1,230	1,524	1,676	1,681	1,714	1,796	1,954	1,942	
Exports 3/	530	221	313	264	364	417	474	413	
Stocks, April 1	248	407	476	600	625	966	842	991	
April-September:									
Domestic disappearance	1,335	1,527	1,628	1,695	1,615	1,756	1,668	1,808	
Exports 3/	277	583	617	689	357	891	693	687	
Season totals									
Domestic disappearance	2,565	3,051	3,304	3,376	3,329	3,540	3,622	3,750	
Exports 3/	807	804	930	953	721	1,308	5/1,167	1,100	
Total distribution	3,372	3,855	4,234	4,329	4,050	4,848	4,789	4,850	
Stocks September 30	286	281	298	308	677	618	920	870	
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Price per pound:									
Crude, tanks, Decatur	12.7	10.8	9.5	8.3	11.3	9.5	8.9	8.4	
SOYBEAN MEAL	Soybean Meal								
	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons
Supply:									
Stocks, October 1 6/	111	55	48	58	83	78	94	153	
Production	7,510	8,284	9,490	9,152	9,452	10,342	11,127	4/10,500	
Total supply	7,621	8,339	9,538	9,210	9,535	10,420	11,221	10,653	
Disposition:									
October-March:									
Feed 7/	3,043	3,864	4,564	4,320	4,706	4,816	5,016	4,658	
Exports	292	180	290	412	338	566	774	660	
Stocks April 1 6/	137	82	97	90	186	97	131	172	
April-September:									
Feed 7/	4,080	4,128	4,404	4,159	4,161	4,446	4,576	4,492	
Exports	151	120	222	237	252	498	702	640	
Season totals:									
Feed 7/	7,123	7,992	8,968	8,479	8,867	9,262	9,592	9,150	
Exports	443	300	512	649	590	1,064	1,476	1,300	
Total distribution	7,566	8,292	9,480	9,128	9,457	10,326	11,068	10,450	
Stocks, September 30 6/	55	48	58	83	78	94	153	203	
Price per ton:	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
Bulk, Decatur	47.45	53.40	55.80	55.55	60.60	63.60	71.30	70.00	

1/ October-April is partly estimated. Disposition through the rest of the year is forecast. 2/ Preliminary. 3/ Beginning 1960 includes estimates of foreign donations not reported by Census. 4/ Based on a soybean crush of 440 million bushels and average yield of 10.9 pounds and meal yield of 47.7 pounds per bushel. 5/ Includes 125 million pounds of soybean salad and cooking oils and shortening which was held by CCC on October 1, 1962 for donations during 1962-63. This quantity needs to be deducted in order to balance out to ending stocks. 6/ Stocks at processors' plants. 7/ Includes small quantities used for industrial purposes estimated at 30,000 tons annually. * Adjusted for new crop beans crushed and exported in September. See table 2, page 7, FOS-221 (January 1964) for adjustment.

1963-64 marketing year are estimated at around 190 million bushels, up about 10 million from last year's record. Most of the increase in 1963-64 soybean exports is going to Europe.

The rate of increase in U. S. soybean exports has slowed some this year (during 1962-63 soybean exports increased 27 million bushels over 1961-62), primarily for the following reasons: (1) Relatively high U. S. soybean prices and low soybean oil prices in Europe appear to be holding down European crusher demand because of the narrowing processing margin; (2) increased supplies of competitive feedstuffs in Western Europe along with relatively high soybean meal prices are tending to limit the demand for U. S. soybeans, even though the European livestock economy is expanding; and (3) a fairly mild winter in Europe apparently has reduced the requirements for prepared mixed feeds.

Based on a crush of 440 million bushels and exports of 190 million bushels, the carryover of old-crop soybeans on October 1, 1964, would be around 45 million bushels (assuming new-crop usage in September is about average, at 7 million bushels). This compares with the small carryover of 15 million bushels on October 1, 1963. A large part of the 1964 carryover (30-35 million bushels) likely will be in the hands of CCC as the trade reduces its stocks of old-crop beans to a minimum in anticipation of lower price for new-crop soybeans. The 1964 national average loan rate for soybeans has been set at $2.25 per bushel, unchanged from the 1963 level.

Cottonseed Crushings Declining Seasonally; CCC Acquires 92 Million Pounds of Oil So Far

Movement of 1963-crop cottonseed to oil mills is virtually complete. During August 1963-April 1964, the mills received 5,665,500 tons, over 91 percent of the 1963 crop. Most of the remaining 9 percent of the crop is being used on farms as seed and feed, with the usual small amount being exported.

Crushings of cottonseed during August 1963-April 1964 were 1 percent below the same months a year before, but oil output was the same because of the higher outturn per ton of seed crushed. Oil yield per ton averaged 335 pounds compared with 331 a year earlier. Stocks of cottonseed at oil mills on May 1, 1964, totaled 811,500 tons compared with 721,200 on the same date last year. Cottonseed crushings and oil output are tapering off seasonally as the marketing year nears completion, and the crush during May-July 1964 is likely to be slightly above last year's.

Cottonseed crushings for the entire 1963-64 marketing year are placed at 5.8 million tons, just a shade above a year earlier. Oil output from this crush would produce 1,950 million pounds of cottonseed oil compared with 1,921 million in 1962-63. Cottonseed meal production for 1963-64 is estimated at 2,750,000 tons compared with 2,708,000 a year earlier (table 3).

Cottonseed oil prices (crude, Valley) generally declined from a monthly average of 10.2 cents per pound in August 1963 to 9.0 cents in January and

Table 3.--Cottonseed, cottonseed oil, and meal: Supply and disposition, crop years 1956-64

Item	Year beginning August								
	1956	1957	1958	1959	1960	1961	1962	1963 1/	1964 2/
COTTONSEED	Cottonseed								
	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons
Supply:									
Stocks, August 1	177	164	175	100	105	188	280	234	
Production	5,407	4,609	4,798	5,991	5,886	5,978	6,139	6,197	
Total supply	5,584	4,773	4,973	6,091	5,991	6,166	6,419	6,431	
Disposition:									
Seed, feed and residual	450	345	430	487	446	340	396	401	
August-April:									
Crushings	4,464	3,808	4,046	4,919	4,741	4,842	5,166	5,110	
Exports	10	6	3	7	4	5	9	4	
May 1, supply remaining	660	614	494	678	800	979	848	916	
May-July:									
Crushings	495	439	393	572	611	697	613	690	
Exports	1	3/	1	1	1	2	1	1	
Season totals:									
Crushings	4,959	4,247	4,439	5,491	5,352	5,539	5,779	5,800	
Exports	11	6	4	8	5	7	10	5	
Ending stocks	164	175	100	105	188	280	234	225	
	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
Price per ton:									
Support 4/	44.00	42.00	41.00	34.00	34.00	45.00	44.00	44.00	44.00
Received by farmers	53.40	51.10	43.80	38.80	42.60	51.10	47.90	5/50.70	
COTTONSEED OIL	Cottonseed Oil								
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
Supply:									
Stocks, August 1	284	202	168	212	287	250	324	514	
Production 6/	1,685	1,438	1,518	1,861	1,808	1,865	1,921	2/1,950	
Total supply	1,969	1,640	1,686	2,073	2,095	2,115	2,245	2,464	
Disposition:									
August-March:									
Domestic disappearance	925	866	847	812	1,058	955	955	947	
Exports 6/ 7/	338	224	101	406	241	298	242	321	
Stocks, April 1	427	314	481	524	448	478	669	802	
April-July:									
Domestic disappearance	408	321	285	453	397	366	405	428	
Exports 6/ 7/	96	62	241	116	149	170	208	154	
Season totals:									
Domestic disappearance	1,333	1,186	1,132	1,263	1,455	1,321	1,360	1,375	
Exports 6/ 7/	434	286	342	522	390	470	371	475	
Total distribution	1,767	1,473	1,474	1,787	1,845	1,791	1,731	1,850	
Stocks, July 31	202	168	212	287	250	324	514	614	
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Price per pound:									
Crude, tank cars, Valley	13.3	13.4	11.4	10.0	11.6	12.4	10.4	10.0	
COTTONSEED MEAL	Cottonseed meal								
	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons
Supply:									
Stocks, August 1 8/	164	252	112	116	190	143	134	187	
Production	2,390	1,958	2,061	2,547	2,504	2,506	2,708	2/2,750	
Imports	64	52	150	32	43	72	45	25	
Total supply	2,619	2,262	2,323	2,696	2,738	2,721	2,887	2,962	
Disposition:									
August-March:									
Feed 9/	2,083	1,718	1,802	1,961	1,916	2,068	2,146	2,116	
Exports	31	9	6	141	51	7	84	39	
Stocks, April 1 8/	264	198	140	141	272	123	149	260	
April-July:									
Feed 9/	413	422	400	398	622	512	457	494	
Exports	1	1	3/	6	6	3/	13	11	
Season totals:									
Feed 9/	2,334	2,140	2,202	2,359	2,538	2,580	2,603	2,610	
Exports	32	10	6	147	57	7	97	50	
Total distribution	2,366	2,150	2,208	2,506	2,595	2,587	2,700	2,660	
Stocks, July 31 8/	252	112	116	190	143	134	187	302	
	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
Price per ton:									
Bulk, Memphis	52.10	55.60	60.55	55.65	55.10	59.25	65.60	62.00	

1/ August-April is partly estimated. Disposition through the rest of the year is forecast. 2/ Forecast. 3/ Less than 500 tons. 4/ Purchase Price, Basis Grade. 5/ Preliminary. 6/ Includes oil equivalent of cottonseed exported. 7/ Beginning 1960 includes estimates of foreign donations, not reported by Census. 8/ Stocks at processors' plants.

February 1964, then increased to 10.5 cents in late-May 1964. This price turnabout since February was largely in response to CCC purchases of cottonseed oil under the 1963 price support program for cottonseed. Starting in February 1964 through May 25, the Corporation acquired 92 million pounds of cottonseed oil; additional purchases are likely. Moreover, prices paid by CCC for cottonseed oil have been increasing since February. This recent rise has been necessary to offset declines in cottonseed meal prices, which have dropped from almost $70 per ton (bulk, Memphis) in January 1964 to close to $50 per ton in late-May, and a sharp drop in cottonseed hull prices (bulk Memphis) which have dropped from over $20 to less than $10 per ton.

The recent strengthening in cottonseed oil prices has helped provide some firmness in the soybean oil market (prices of crude soybean oil at Decatur increased from $7\frac{3}{4}$ cents per pound in early April to 8.5 cents in late May). Other factors have been the decline in soybean crushings and a pickup in programming of edible oils under P.L. 480. Cottonseed oil prices during the summer probably will average above the July-September 1963 level of 10.3 cents per pound, but cottonseed meal prices likely will average well below the $69.50 per ton of a year earlier.

The price outlook for 1964-crop cottonseed and cottonseed products appears more promising than in 1963 because of the prospective decline in acreage and production, which is expected to result from the recently enacted cotton legislation.

Domestic disappearance of cottonseed oil during August 1963-March 1964 totaled 947 million pounds, approximately the same as the year before. Exports during these months totaled 321 million pounds compared with 240 million in 1962-63. Stocks on April 30, 1964, totaled 810 million pounds (crude and refined) compared with 675 million the same date in 1963. Domestic use for the entire year is placed at 1,375 million pounds and exports at 475 million pounds, leaving estimated carryover stocks on August 1, 1964, of around 600 million pounds, roughly 100 million more than on the same date last year.

Cottonseed oil acquired by CCC under the 1963 purchase program will not be sold in commercial channels at less than the higher of:

(1) The minimum sales price of 105 percent of the average investment cost to CCC, calculated monthly, for all cottonseed oil delivered under the program up to that time or;

(2) The market prices for similar cottonseed oil at the time and place of sale.

The CCC also reserves the right to refuse all purchase offers.

This policy will remain in effect until June 30, 1965, unless market conditions justify a change. Cottonseed oil acquired under the program and not otherwise disposed of will be utilized in donation programs.

Edible Oil Supplies Large; Exports Now Placed At 1.6 Billion Pounds

Edible vegetable oil supplies (cottonseed and soybean oils) continue in heavy supply and stocks are not likely to be reduced this marketing year--even with increased disappearance and lower soybean crushings.

The total supply of edible vegetable oils (crude and refined) during October 1963-September 1964 is placed at 8.1 billion pounds, 3 percent more than the year before. Domestic use is estimated at 5.1 billion pounds and exports at 1.6 billion, leaving estimated carryover stocks of 1.4 billion pounds on October 1, 1964. This is about the same as the year before and compares with the 1955-60 average of 0.5 billion pounds.

Prospective exports of edible oils for 1963-64 are shown in table 4.

Table 4.--Cottonseed and soybean oils: Dollar and Food-for-Peace exports, 1963-64 forecast compared with 1961-62 and 1962-63

Export financing	1961-62 1/			1962-63 2/			Forecast 1963-64		
	SBO	CSO	Total	SBO	CSO	Total	SBO	CSO	Total
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
Dollars 3/	622	182	804	520	207	727	450	300	750
Food for Peace (P. L. 480)									
Title I	467	204	671	531	132	663	[	]	
Title IV	21	---	21	15	---	15	[650	200]	750
Title II	14	5	19	43	19	62	[	]	100
Title III	184	81	265	68	29	4/97	[	]	
Total P. L. 480	686	290	976	657	180	837	650	200	850
Grand total	1,308	472	1,780	1,177	387	1,564	1,100	500	1,600

1/ Partly estimated. 2/ Partly estimated. Includes 8.3 million pounds of soybean salad oil under Title I shipped to Guinea and 1.5 million pounds of soybean salad oil to Bolivia under Title IV not reported by Census. 3/ Includes some AID. 4/ Excludes an estimated 44 million pounds of Title III oil products for domestic donation.

Table 5.--Food fats and oils: Supply and disposition, 1955-64

Item	Year beginning October									
	1955	1956	1957	1958	1959	1960	1961	1962 1/	Forecast* 1963	Forecast* 1964
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
Stocks, October 1										
Soybeans--oil equivalent 2/	108	41	109	231	680	256	66	634	166	3/495
Butter	295	90	145	146	93	136	238	17/442	17/469	17/270
Lard	75	123	69	46	93	92	100	73	81	80
Cottonseed oil	361	254	146	154	190	217	170	296	488	590
Soybean oil	179	227	286	281	298	308	677	618	920	870
Other 4/	51	66	49	56	60	78	94	128	182	175
Sub-total	962	760	694	5/683	734	830	1,279	1,557	2,140	1,985
Finished products 6/	141	129	113	118	142	156	249	16/442	314	250
Total food fats and oils	1,103	889	807	801	876	987	1,528	1,999	2,454	2,235
Imports	59	52	70	74	66	81	91	55	55	
Production										
Butter	1,563	1,527	1,502	1,413	1,435	1,488	1,595	1,477	1,400	
Lard	2,852	2,614	2,423	2,679	2,726	2,484	2,471	2,497	2,450	
Cottonseed oil 7/	1,893	1,629	1,420	1,589	1,832	1,786	1,952	1,909	1,950	
Soybean oil	3,143	3,431	3,800	4,251	4,338	4,420	4,790	5,091	4,800	
Other 4/ 7/	667	719	678	767	771	863	923	1,057	1,075	
Sub-total	10,118	9,920	9,823	10,700	11,102	11,041	11,731	12,031	11,675	
Soybean exports (oil equiv.)	741	937	939	1,209	1,552	1,431	1,685	1,984	2,100	
Total food fats and oils	10,859	10,857	10,762	11,909	12,654	12,472	13,416	14,015	13,775	
Total supply	12,021	11,798	11,639	12,784	13,596	13,540	15,035	16,069	16,284	
Exports 8/										
Butter	244	18	36	19	22	9	9/20	9/122	9/275	
Lard	719	590	461	608	716	513	508	571	650	
Cottonseed oil 7/	617	427	250	406	506	9/371	9/474	9/389	9/500	
Soybean oil	556	807	804	930	953	9/721	9/1,308	9/1,167	9/1,100	
Other 4/ 7/	50	62	19	34	43	9/40	11	15	35	
Adjustment 10/	52	61	85	117	88	83	77	93	75	
Sub-total	2,238	1,965	1,655	2,114	2,328	1,737	2,398	2,357	2,635	
Soybeans (oil equivalent)	741	937	939	1,209	1,552	1,431	1,685	1,983	2,100	
Total exports	2,979	2,903	2,593	3,323	3,880	3,168	4,083	4,340	4,735	
Domestic use										
Butter	1,526	1,458	1,467	1,449	1,373	1,378	1,373	1,331	1,325	
Lard 11/	2,065	2,039	1,994	2,204	2,005	1,968	1,985	1,907	1,800	
Cottonseed oil	1,384	1,310	1,195	1,147	1,299	1,461	12/ [1,352	1,328	1,350	
Soybean oil	2,539	2,565	3,051	3,304	3,376	3,329	[3,540	3,622	3,750	
Other 4/	659	722	719	796	773	912	968	1,040	1,100	
Adjustment 10/	-52	-61	-85	-117	-88	-83	-77	-93	-75	
Total 11/	8,121	8,033	8,341	8,603	8,739	8,965	9,140	9,135	9,250	
Total (calculated net) 13/	8,134	8,049	8,336	8,579	8,725	8,872	8,949	9,287	9,315	
Total use for food 14/	7,871	7,886	8,145	8,389	8,438	8,559	8,571	8,867	9,050	
	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.
Per capita, civilian and military 15/										
Butter (fat content)	7.2	6.9	6.8	6.6	6.2	6.1	6.0	5.7	5.6	
Other	37.9	37.7	38.5	39.4	39.4	39.4	38.8	40.1	40.5	
Total (fat content)	45.2	44.6	45.3	46.0	45.6	45.5	44.8	45.8	46.0	

1/ Preliminary. 2/ Not included in total stocks. 3/ Oil equivalent of 45 million bushels of soybeans. 4/ Includes beef fats, peanut, corn, olive and sesame oils. 5/ Adjusted to new Census basis which includes hydrogenated oils and stearin. 6/ Shortening and salad and cooking oils. 7/ Includes oil equivalent of oilseeds exported. 8/ Includes shipments. Butter, cottonseed oil and adjustments include quantities from CCC stocks that are not reported in Census data. 9/ Includes estimates of foreign donations of fats and oils, not reported by Census. 10/ Includes exports of processed food oils not classified by kind, shortening and other secondary fats. 11/ Adjusted for estimated changes in stocks of farm lard. 12/ Includes 180 million pounds of shortening and salad and cooking oils purchased by CCC for foreign donations but not exported in 1961-62. 13/ Adjusted to reflect changes in stocks of finished products. 14/ Excludes food fats used for non-food purposes, but includes non-food oils (mostly coconut and palm kernel) used in food. 15/ Adjusted for trade and changes in stocks of shortening, margarine and salad and cooking oils. 16/ Includes 100 million pounds of shortening and salad and cooking oils (75 million SBO and 30 million CSO) which was held by CCC on October 1, 1962 for foreign donations during 1962-63. 17/ Includes estimates of butter oil, ghee, and canned butter not shown in cold storage stocks report.

*Except for October 1, 1963 stocks.

The current estimate of the 1963-64 edible vegetable oils exports of 1.6 billion pounds (about 2 percent above last year) is 100 million pounds below the March estimate. The downward revision in the estimate is mainly due to a slowdown in initiating Title I, P.L. 480 programs. Prospects are good that large programs may be developed which should result in substantial exports this summer. However, continued delays now appear to indicate that a large amount of program oil may remain unshipped on September 30, 1964, the end of the current marketing year. Exports of edible oils under the Food for Peace Program (all Titles of P.L. 480) for 1963-64 are now placed at 850 million pounds, approximately 53 percent of total exports, compared with 837 million pounds which were also 53 percent of the total in 1962-63.

Exports of edible vegetable oils during October 1963-March 1964 (the period for which latest Census data are available) totaled 688 million pounds, including little, if any, foreign donations. During these same months a year earlier, when exports were about as large (684 million pounds), they included 70 million pounds for foreign donations.

Soybean oil exports in October 1963-March 1964 were 413 million pounds, down 13 percent from the year-earlier level of 474 million. This decline was about offset by a 31 percent increase in cottonseed oil exports to 275 million pounds, from 210 million in October 1962-March 1963.

Through May 20, 1964, purchase authorizations had been issued for about 650 million pounds of cottonseed and soybean oils under Titles I and IV of P.L. 480 for export during the 1963-64 marketing year. The remaining 200 million pounds of the 850 million that have been estimated would consist of shipments to Pakistan, Israel, Tunisia, and Turkey in addition to new programs with Brazil, Morocco, Greece, Chile, and a few other countries.

Cottonseed and soybean oil exports for dollars in 1963-64 are estimated at 750 million pounds compared with 727 million the year before. Northern Europe, Spain, and Iran are the leading dollar markets for these commodities. Edible oil exports for dollars during October 1963-March 1964 were 12 percent above the year before.

Corn Oil Supply and Usage at Record Levels; Prices Are at Postwar Low

The total supply of corn oil for the 1963-64 marketing year that started October 1 is estimated at a record 491 million pounds, nearly 11 percent more than in 1962-63 (table 6). The increase is due to a record output resulting from the expansion in wet-process grindings of corn. Corn oil output, a by-product of the corn refining (or wet milling) industry, is determined by the demand for primary corn-milled products rather than the demand for corn oil. The volume of corn ground by wet millers during October 1963-March 1964 totaled 97 million bushels, 15 percent more than a year earlier.

Output of corn oil totaled 241 million pounds during October 1963-April 1964 compared with 212 million a year earlier. Production for the entire marketing year is estimated at 425 million pounds, a new high and 12 percent

Table 6.--Corn Oil: Supply and disposition, 1947-63

Year beginning October	Supply: Production	Supply: Imports	Supply: Stocks October 1	Supply: Total	Disposition: Exports and shipments 1/	Disposition: Domestic disappearance
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
1947	204	---	13	217	2/	207
1948	225	---	10	235	2	222
1949	242	2/	11	253	2	233
1950	243	2/	18	261	3	247
1951	223	2/	12	235	2/	222
1952	258	2/	12	270	---	254
1953	252	---	16	268	---	253
1954	268	1	15	284	---	265
1955	270	---	19	289	---	267
1956	286	---	23	309	---	293
1957	291	6	16	313	---	289
1958	315	10	25	350	---	327
1959	332	12	24	368	---	329
1960	331	22	39	391	---	358
1961	361	26	33	420	---	370
1962	379	15	50	444	---	381
1963 3/	425	3	63	491	---	420

1/ Includes exports under voluntary relief programs in 1948-49. 2/ Less than 500,000 pounds.
3/ Preliminary and partly estimated.
Totals computed from unrounded numbers

Table 7.--Corn Oil: Utilization, 1947-63

Year beginning October	Food uses: Shortening	Food uses: Margarine	Food uses: Salad and cooking oil	Food uses: Other	Food uses: Total	Non-food uses: Soap	Non-food uses: Foots and loss	Non-food uses: Other	Non-food uses: Total	Total domestic disappearance
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
1947	3	3	178		183	1/	17	7	24	207
1948	1	1	201		203	1/	17	2	19	222
1949	1/	1/	215		215	1/	16	2	18	233
1950	1/	1/	224		224	1/	20	3	23	247
1951	1	1/	197		198	1/	22	2	24	222
1952	1	1	229		231	1/	21	3	24	254
1953	1	1/	229		231	1/	20	2	22	253
1954	3	1/	231		234	1/	30	2	31	265
1955	2	1	243		246	0	19	1	20	267
1956	2	1/	270		273	0	19	1	20	293
1957	4	1	261		265	0	22	1	23	289
1958	5	13	208	77	303	0	23	1/	23	327
1959	6	39	250	4	299	0	27	3	30	329
1960	11	82	224	8	326	0	30	2	32	358
1961	10	95	205	27	337	0	32	1	33	370
1962	5	107	203	34	349	0	32	1	33	381
1963 2/	1	150	220	15	386	0	33	1	34	420

1/ Less than 500,000 pounds
2/ Preliminary and partly estimated.
Totals computed from unrounded numbers.

above last season. Because of record domestic production and low prices, U. S. imports of corn oil during the current marketing year probably will fall off to around 3 million pounds, compared with 15 million in 1962-63 and the 1961-62 peak of 26 million pounds.

Domestic disappearance of corn oil in October 1963-March 1964 was 210 million pounds, 9 percent more than the 192 million pounds a year earlier. Stocks on May 1, 1964, were 64 million pounds, 9 million above a year earlier. Domestic usage in the second half of the marketing year probably will continue at about the first half rate, bringing total disappearance for 1963-64 to an estimated 420 million pounds.

During recent years, about 91-92 percent of the corn oil utilized in the United States has been in food products, and the balance has gone into non-food uses, primarily as foots (soapstock). This consumption pattern is likely to continue, since the special inherent qualities of corn oil are highly desirable in cooking and salad oil and margarine. Most refined corn oil is marketed directly as packaged goods for the retail trade, but margarine manufacture is becoming an increasingly important outlet for this commodity. Use of corn oil in margarine is up sharply this year and likely will reach a new high of 150 million pounds for 1963-64 compared with last year's record 107 million pounds.

Corn oil prices (crude, Midwest mills) declined from 11.4 cents per pound in October 1963 to 9.8 cents in January 1964--the lowest monthly average in the postwar era--then increased slightly to 10.2 cents per pound in May. For the entire October-May period they averaged 10.3 cents per pound compared with 13.7 cents a year earlier. The slight increase in corn oil prices since January 1964 apparently is closely related to the strengthening in prices for competitive cottonseed oil, the predominant liquid salad and cooking oil in the United States. This shows that the consumer market for cooking and salad oils is highly competitive.

Corn oil prices during the remainder of the marketing year probably will remain relatively steady, averaging somewhat below the June-September 1963 level of 11.3 cents per pound. For the entire 1963-64 season, the average is likely to be around 10.3 cents per pound, the lowest in the postwar era, compared with 12.9 cents in 1962-63 and 16.8 cents per pound in 1961-62.

Lard Output Expected to Drop Below Year-Earlier Level; Exports Are 54 Percent Ahead of 1962-63

Commercial lard production in October 1963-March 1964 totaled 1,276 million pounds, approximately the same as the year before. Hog slaughter in the same 6 months was up 4 percent, but average yield of lard per hog was 28.2 pounds compared with 29.0 a year earlier. Lard production will decline seasonally through the summer, with hog slaughter and lard output expected to be 4 to 5 percent under last year's level. Lard production for the entire 1963-64 marketing year (including farm) is estimated at 2,450 million pounds, approximately 50 million below 1962-63.

Table 8 .--Lard: Supply and Disposition, 1956-64

Year beginning October	1956	1957	1958	1959	1960	1961	1962	1963 1/	1964
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
Supply									
Stocks, October 1 2/	123	69	46	93	92	100	73	81	
Commercial Production	2,426	2,246	2,514	2,556	2,345	2,350	2,389	2,350	
Farm Production	188	177	165	170	139	121	108	100	
Total supply	2,737	2,492	2,725	2,819	2,576	2,571	2,570	2,531	
Disposition									
October-March:									
Direct use	852	855	831	784	701	739	688	712	
Manufacturing	280	216	208	319	269	339	346	311	
Total Domestic disappearance 3/	1,132	1,071	1,039	1,103	970	1,078	1,034	1,023	
Exports and shipments	311	255	288	384	287	253	219	306	
Total disappearance	1,443	1,326	1,327	1,487	1,257	1,331	1,254	1,329	
Stocks, April 1	119	85	132	145	141	104	167		
April-September:									
Domestic disappearance 3/	907	923	985	902	998	907	872	777	
Exports	279	206	320	332	226	255	352	344	
Season totals									
Domestic disappearance 3/	2,039	1,994	2,024	2,005	1,968	1,985	1,907	1,800	
Exports and shipments	590	461	608	716	513	508	571	650	
Stocks, September 30 2/	69	46	93	92	100	73	81	80	
Price per pound	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Tanks, loose, Chicago	12.7	11.6	8.7	8.2	9.9	8.6	8.2	9.2	

1/ Preliminary and partly estimated. 2/ Factory and warehouse stocks as reported by the Bureau of the Census. 3/ Adjusted for estimated changes in stocks on farms.

Table 9 .--Butter: Supply and Disposition, 1956-64

Year beginning October	1956	1957	1958	1959	1960	1961	1962	1963 1/	1964
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
Supply									
Stocks, October 1 2/	90	145	146	93	136	238	3/442	3/469	
Creamery production	1,403	1,400	1,332	1,369	1,434	1,550	1,442	1,370	
Farm production	124	102	81	66	54	44	35	30	
Imports	5	2	2	3	2	2	2	2	
Total supply	1,622	1,649	1,561	1,531	1,626	1,834	1,921	1,871	
Disposition									
October-March:									
Exports	12	12	5	16	5	6	4/36	4/156	
Domestic disappearance	739	739	756	705	723	722	715	727	
Total disappearance	751	751	761	721	728	728	751	883	
Stocks, April 1 2/	41	106	63	65	98	303	3/425	3/276	
April-September:									
Domestic disappearance	719	728	693	668	655	656	658	598	
Exports	6	24	14	5	5	14	86	119	
Season totals									
Domestic disappearance	1,458	1,467	1,449	1,373	1,378	1,378	1,373	1,325	
Exports	18	36	19	22	9	4/20	4/122	4/275	
Stocks, September 30 2/	145	146	93	136	238	3/442	3/469	3/270	
Price per pound	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Support for butter fat 5/	58.6	58.6	56.6	56.6	60.4	60.4	57.2	58.1	58.0
Creamery (92 score) Bulk, New York	61.0	59.8	59.8	60.2	61.5	60.0	59.0	59.0	

1/ Preliminary and partly estimated. 2/ Cold storage stocks, includes stocks held by the U. S. Department of Agriculture. 3/ Includes estimates of butter oil, ghee, and canned butter not shown in cold storage reports. 4/ Includes estimates of foreign donations not reported by Census. 5/ Price in effect October 1.

Domestic disappearance of lard (excluding farm) in the first half of the 1963-64 marketing year was 936 million pounds, 2 percent less than in 1962-63. Use of this commodity in shortening manufacture totaled 267 million pounds, 36 million under last year. Consumption of lard in margarine manufacture during this period was 35 million, about the same as the year before. The consumption rate in shortening during April-September 1964 probably will continue lower than last year, since prices will likely continue relatively high compared with competitive soybean oil. Lard usually sells at a discount to soybean oil, but lard this year has been selling at nearly a 1.0 cent premium. Total domestic disappearance of lard (including farm) in 1963-64 is estimated at 1,800 million compared with 1,907 million in 1962-63.

Lard exports during October 1963-March 1964 totaled 282 million pounds, 54 percent more than the 183 million pounds the same 6 months in 1962-63. The United Kingdom continues to be the major taker, accounting for three-fourths of the total. Exports to East European countries are increasing this marketing year. About 20 million pounds were shipped to Yugoslavia, Hungary, and Czechoslovakia during October 1963-March 1964; additional shipments are expected. Total U. S. lard exports (including shipments) for the entire 1963-64 marketing year are estimated at 650 million pounds, about one-fourth of domestic production, compared with 571 million in 1962-63.

Lard prices (tanks, loose, Chicago) during October 1963-May 1964 have been relatively stable, averaging 9.2 cents per pound, approximately 1.0 cent above the same 8 months for the year before. Lard prices during June-September 1964 probably will average around the late-May level of 9.2 cents per pound compared with 8.2 cents the same 4 months last year. Output is expected to be slightly less than last year during the summer months, while export demand continues strong.

Use of Peanuts in Edible Products Up 6 Percent; Crushings 40 Percent Higher Than Last Year

The 1963 peanut crop of 2,022 million pounds (farmers' stock basis) was 12 percent larger than in 1962 and the largest since 1950. Approximately 18 percent of the 1963 crop was placed under the support program, including acquisitions under the No. 2 program. This was about the same proportion as last season.

Use of shelled peanuts in primary edible products this marketing year is about 6 percent above that of last season. During August 1963-April 1964, a total of 652 million pounds was used compared to 617 million a year earlier. This higher use is attributable mainly to increased peanut butter and salted peanuts production. Total civilian consumption of shelled peanuts in 1963-64 is expected to average around 5.1 pounds per person (table 10).

During August 1963-April 1964, shelled peanuts crushed for oil and meal totaled 206 million pounds compared with 148 million a year ago. For the

Table 10.--Peanuts: Supply and disposition (kernel basis), United States, 1935-63

Year beginning Aug. 1	Supply				Disposition					
	Production 1/	Imports	Beginning stocks 2/	Total supply	Exports and shipments	Crushed for oil	Seed, feed, farm loss and skrinkage	Domestic food use		
								Military	Civilian	Civilian per capita
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Lb.
Average 1935-39	821	3	33	857	1	148	108	---	563	4.3
1940	1,192	4	146	1,342	1	406	98	---	655	5.0
1941	1,002	1	182	1,185	6	170	197	50	633	4.8
1942	1,504	3	129	1,636	3	288	230	100	804	6.2
1943	1,466	1	211	1,678	23	329	202	150	734	5.7
1944	1,444	38	240	1,722	19	303	206	200	778	6.0
1945	1,427	22	216	1,665	45	277	191	10	886	6.6
1946	1,407	3/	256	1,663	173	369	204	---	746	5.3
1947	1,526	3/	171	1,697	337	334	208	2	652	4.5
1948	1,633	3/	164	1,797	507	331	145	4	668	4.6
1949	1,325	3/	142	1,467	122	434	154	5	608	4.1
1950	1,432	3/	144	1,576	48	442	152	10	680	4.5
1951	1,157	0	244	1,401	6	301	99	7	701	4.6
1952	926	0	287	1,213	2	133	103	7	681	4.4
1953	1,085	3/	287	1,372	165	209	102	7	694	4.4
1954	677	121	195	993	6	72	94	5	679	4.2
1955	1,098	3	137	1,238	4	183	114	1	676	4.1
1956	1,151	4	260	1,415	73	186	114	2	735	4.4
1957	1,013	2	305	1,320	34	168	115	2	763	4.5
1958	1,284	1	238	1,523	44	237	116	6	770	4.5
1959	1,145	3/	351	1,496	52	211	116	2	830	4.7
1960	1,274	3/	282	1,556	58	258	110	6	881	4.9
1961	1,238	2	242	1,482	24	181	121	5	897	4.9
1962	1,286	1	255	1,541	31	215	114	6	916	5.0
1963 4/	1,437	1	260	1,698	30	325	125	6	950	5.1

1/ Kernel production derived from production on a farmers' stock basis by means of a conversion factor dependent upon shelling operation in each year.
2/ Includes oilstock peanuts.
3/ Less than 500,000 pounds.
4/ Preliminary. Disposition is partly estimated.

entire 1963-64 season, crushings are expected to total 325 million pounds, 50 percent above 1962-63.

The 1964-crop peanuts will be supported at a national average loan rate of $224.00 per ton (11.2 cents per pound), unchanged from last year. The 1964 support price is 79 percent of parity. Support by types is as follows: Virginia, $236.86 per ton; Runner, $211.24; Southeast Spanish, $228.98; Southwest Spanish, $219.70; and Valencia (suitable for cleaning and roasting) $236.86. Price support will be available through loans and purchases. Peanut acreage allotments and marketing quotas have been in effect since 1949.

Flaxseed Prices Steady At About Support; Linseed Meal Prices Drop Sharply

Flaxseed prices (No. 1, Minneapolis), after dropping from $3.05 per bushel in July 1963 to $2.90 in September, rose slowly to $3.14 in March 1964. Prices since then have held about steady. In late-May they were $3.10 per bushel, about equal to the 1963 Minneapolis support rate of $3.13 per bushel. Linseed oil prices (raw, Minneapolis) have shown a similar price pattern, increasing from 12.3 cents per pound in September to 13.3 cents in January 1964, then holding at this level through late-May. Prices of flaxseed and linseed oil are expected to remain near their late-May levels, at least until new-crop prospects in both the United States and Canada become clearer.

Flaxseed supplies in the 1963-64 marketing year starting July 1, 1963, are 40 million bushels, 4 million more than the previous year (table 11). Crushings for the entire year may total around 20 million bushels, leaving 20 million for seed, export, and carryover. After allowing for export and seed usage, approximately 14 million bushels will be carried over into the 1964-65 marketing year. Most of the carryover will be in CCC hands.

As of May 1, 1964, the CCC had acquired 12.4 million bushels of 1963-crop flaxseed under the price support program, about 39 percent of the crop, and owned another 2.4 million bushels acquired under the 1962 program.

On April 2, 1964, the USDA resumed offering CCC-owned flaxseed for export sale. Sales are to be made on a competitive bid basis in such quantities so as not to disrupt world markets. Purchasers are required to export, within 120 days from the sale, either the flaxseed or its equivalent in linseed oil in terms of 19 pounds of oil for each bushel of flaxseed purchased.

Also, on May 1, 1964, CCC announced it will sell approximately 3 million bushels of its flaxseed for crushing and the concurrent purchase of the resultant quantity of linseed oil (approximately 60 million pounds). Flaxseed will be sold at announced prices and locations in store or f.o.b. processors' conveyance. Acceptance will be based on prices which bidders offer to sell back linseed oil to CCC. Linseed oil must be delivered to CCC on the basis of 20 pounds of oil per net bushel of flaxseed sold to crushers. Processors retain ownership of the meal.

Table 11.--Flaxseed, linseed oil, and meal: Supply and disposition, crop years, 1955-63

Item	Year beginning July								
	1955	1956	1957	1958	1959	1960	1961	1962	1963 1/
FLAXSEED					Flaxseed				
	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.
Supply									
Stocks, July 1	11.2	4.1	19.4	8.7	14.6	3.0	5.3	3.6	8.4
Production	40.4	47.0	25.1	37.4	21.2	30.4	22.2	32.2	31.5
Total supply	51.6	51.2	44.5	46.2	35.9	33.4	27.5	35.8	39.8
Disposition									
Seed and residual	2.2	3.1	-.5	3.2	1.4	1.1	3.4	2.1	.8
July-April:									
Crushings	30.0	23.1	24.4	19.4	21.0	16.2	16.8	17.3	15.5
Exports	3.2	.5	2/	1.0	.7	3.5	.5	.8	2.6
May 1, supply remaining	16.2	24.5	20.6	22.6	12.8	12.6	6.8	15.6	20.9
May-June:									
Crushings	4.9	3.1	2.9	3.0	2.2	3.8	2.2	3.7	4.5
Exports	7.2	2.0	9.0	5.0	7.6	3.5	1.0	3.5	2.4
Season totals									
Crushings	34.9	26.2	27.3	22.4	23.2	20.0	19.0	21.0	20
Exports	10.4	2.5	9.0	6.0	8.3	7.0	1.5	4.3	5
Ending stocks	4.1	19.4	8.7	14.6	3.0	5.3	3.6	8.4	14
	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
Price per bushel									
Support 3/	2.91	3.09	2.92	2.78	2.38	2.38	2.80	2.90	2.90
Received by farmers	2.90	2.99	2.94	2.69	3.00	2.65	3.26	2.83	4/2.79
LINSEED OIL					Linseed Oil				
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
Supply									
Stocks, July 1	139	142	99	112	97	90	94	105	131
Production	695	532	535	448	465	399	391	428	6/400
Total supply	834	674	634	560	562	489	485	533	531
Disposition									
July-March:									
Domestic disappearance	418	372	313	322	324	263	272	279	266
Exports	105	27	82	3	3	7	1	8	14
Stocks, April 1	170	182	149	153	161	105	135	134	133
April-June:									
Domestic disappearance	135	125	122	133	94	107	106	115	134
Exports	35	51	5	5	52	17	1	1	6
Season totals									
Domestic disappearance	552	497	435	455	418	370	378	394	400
Exports	140	78	87	8	55	24	2	9	20
Stocks, June 30	142	99	112	97	90	94	105	131	110
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Price per pound									
Tank cars, Minneapolis	14.0	13.1	14.2	12.9	13.5	12.9	15.2	13.0	13.0
LINSEED MEAL					Linseed Meal				
	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons
Supply									
Stocks, July 1 5/	22	36	16	24	10	46	25	10	21
Production	643	484	505	409	426	378	358	388	8/ 370
Total supply	665	520	521	433	436	424	383	398	391
Disposition									
July-March:									
Domestic disappearance	373	337	380	343	257	262	292	238	238
Exports	130	76	12	12	65	39	16	50	31
Stocks, April 1 5/	30	23	44	8	48	28	7	11	10
April-June:									
Domestic disappearance	111	94	111	73	69	100	67	86	97
Exports	15	7/	7/	2	2	7/	7/	4	5
Season totals									
Domestic disappearance	484	431	491	416	326	362	359	324	335
Exports	145	76	12	14	67	39	16	54	36
Stocks, June 30 5/	36	16	24	10	46	25	10	21	20
	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
Price per ton									
Bulk Minneapolis	55.05	53.15	49.00	63.65	62.95	53.34	62.70	67.50	61.00

1/ July-April is partly estimated. Disposition through the rest of the year is forecast. 2/ Less than 500,000 bushels. 3/ Farm basis. 4/ Preliminary. 5/ Stocks at Processors' plants. 6/ Based on a linseed oil yield of 20.0 pounds per bushel. 7/ Less than 500 tons. 8/ Based on a linseed meal yield of 37.0 pounds per bushel.

The 1964 crop of No. 1 flaxseed will be supported at a national average price of $2.90 per bushel, unchanged from 1963. As in previous years, the program will operate mostly through farm and warehouse-stored loans and purchase agreements.

Linseed meal prices (bulk, Minneapolis), after rising from $64 per ton in June 1963 to $70 in October 1963, dropped sharply to $51 in May 1964, the lowest monthly average since October 1960. Prices are expected to continue below the June-September 1963 average of $67 per ton, since CCC toll crushing operations will tend to increase linseed meal supplies. Domestic disappearance of linseed meal during July 1963-March 1964 was 238,000 tons, the same as the year before. But exports at 31,000 tons were down 38 percent from the year-earlier level of 50,300 tons.

Inedible Tallow Output Forecast at 4.2 Billion Pounds; Domestic Use Up As Fats in Feed Figures Are Revised

Inedible tallow and grease production for 1963-64 is now forecast at a record 4.2 billion pounds, 14 percent more than the year before. The rise is due to an increase in the cattle slaughter rate and slightly heavier animals than a year earlier. Domestic use of inedible tallow and grease probably will total about 2.0 billion pounds and exports are estimated at around 2.2 billion pounds. Stocks of inedible tallow and grease on May 1, 1964, were 396 million pounds, 7 percent below a year earlier.

During October 1963-March 1964, Census-reported factory consumption of inedible tallow and grease totaled 968 million pounds compared with 896 million a year earlier. Most of the increase was in animal feeds, but use in fatty acids and lubricants were also up slightly. Utilization of tallow in soap manufacture was down slightly. The comparisons for tallow used in animal feeds between the 2 periods are not directly comparable, due to revised reporting procedures.

Beginning in 1964, Census began reporting data on the consumption of inedible tallow and grease in animal feeds from information received directly from renderers, representing actual shipments to feed manufacturers. Previously, these data were obtained from a sample of large feed manufacturers and resulted in estimates that were believed to be significantly understated. The revised procedure is believed to constitute a better estimate of the actual consumption of tallow in animal feed production and probably will result in greater amounts shown for this category than in past years.

For the first quarter of 1964, Census revised the tallow used in feeds from 99.6 million pounds to 175.3 million, an increase of 76 percent. Projecting the revised January-March 1964 figures, the total consumption in feeds for calendar 1964 would be around 800 million pounds. The Census-reported consumption (unrevised) for calendar 1963 was 428 million pounds.

Table 12.--INEDIBLE TALLOW: Programs under Titles I and IV of Public Law 480 as of May 1, 1964

Country	P. A. Number	Purchase Authorization: Quantity 1/	Purchase Authorization: Final delivery	Purchase Authorization: Recorded shipments 2/ 4/	Still to be shipped
		Million pounds		Million pounds	Million pounds
Carry-in 10/1/63					
Title I Programs					
Pakistan	15-130	66.1	6-30-64	30.8	35.3
U.A.R.	46-81	33.1	1-31-64	33.1	---
Total		99.2		63.9	35.3
Title IV Programs 3/					
Since 10/1/63:					
Title I Programs					
China (Taiwan)	37-74	14.2	4-30-64	14.2	---
China (Taiwan)	37-78	11.0	10-31-64	---	11.0
Korea	24-98	13.2	6-30-64	2.8	10.4
Korea	24-106	17.6	10-31-64	---	17.6
Greece	26-67	3.5	5-31-64	---	3.5
Turkey	10-80	35.3	7-31-64	24.6	10.7
Turkey	10-82	66.1	10-31-64	---	66.1
U.A.R.	46-94	38.6	6-30-64	30.5	8.1
U.A.R.	46-99	18.7	6-30-64	4.4	14.3
Ivory Coast	65-01	15.4	12-31-64	---	15.4
Total		233.6		76.5	157.1
Title IV Programs					
Colombia	25-406	1.7	1-31-64	1.7	---
Ecuador	29-412	0.3	6-30-64	---	0.3
Total		2.0		1.7	0.3
Grand total		334.8		142.1	192.7

1/ Estimate based upon market price at time P.A. was issued. 2/ Based upon bills of lading received through the current month. 3/ Ryukyu Islands has a Title IV agreement, 2.9 million pounds, no P.A. issued. 4/ April shipments: China (37-74) 1.1 million pounds; Korea (24-98) .9 million pounds; Pakistan (15-130) 4.6 million pounds; Turkey (10-80) 10.3 million pounds; U.A.R. (46-94) 13.8 and (46-99) 2.2 million pounds.

Foreign Agricultural Service, Livestock and Meat Products Division.

Inedible Tallow Exports Now Estimated at 2.2 Billion Pounds; Prices 18 Percent Higher Than Last Year

Exports of inedible tallow and greases during October 1963-March 1964 totaled 1,034 million pounds, 44 percent above the year before. The increase this year is going mainly to the Netherlands, Poland, Pakistan, Egypt, Japan, and Iran. Japan is our leading dollar market and has taken about one-fifth of our total exports in recent years. Italy, the Netherlands, West Germany, and Spain are important markets for commercial tallow exports. The USSR may also be a buyer of inedible tallow from the United States because of the anticipated drop in Russian slaughter fats.

Exports under P.L. 480 are expected to continue heavy, with UAR, Pakistan, Turkey, China (Taiwan), and Korea the major takers. As of May 1, 1964, about 193 million pounds of inedible tallow and grease remained to be shipped under existing P.L. 480 purchase authorizations (table 12).

Inedible tallow prices (prime, c.a.f. delivered, Chicago) during October 1963-May 1964 averaged 5.7 cents per pound compared with 4.9 cents the year before. The strong export demand for U. S. inedible tallow has been the major factor contributing to higher prices this year. Prices during June-September 1964 probably will average slightly above the year-earlier level of 5.4 cents per pound.

Tung Oil Supplies One-Fourth Larger Than Last Year; Prices Fall Close To Support

During November 1963-April 1964 tung oil production totaled 20.6 million pounds compared with 6 million the year before. Most of the 1963 tung nut crop has been crushed and this likely will be the output for the entire marketing year.

Total domestic supplies of tung oil (1963 production, stocks, and imports) for 1963-64 are estimated at 49 million pounds, one-fourth larger than 1962-63. Stocks on May 1, 1964, totaled 22.8 million pounds, about 50 percent above a year ago.

Tung oil imports in November 1963-March 1964, totaled 11 million pounds, about the same as a year ago. Total imports, mainly from Argentina, for the 1963-64 marketing year are estimated at 22 million pounds, up slightly from last season.

Domestic disappearance of tung oil during the November 1963-March 1964 period is running about a third higher than this period last season. Total domestic disappearance for the 1963-64 marketing year is placed at 35 million pounds compared with 30 million in 1962-63.

Tung oil prices (domestic, tanks, Southern mills) during November 1963-April 1964 averaged 28.8 cents a pound, 10.2 cents below a year earlier. In late-May 1964, tung oil prices (New York) were around 25 cents a pound, below the support price of 24.0 cents a pound (at Southern mills) plus added transportation charges. As domestically-produced tung oil goes into the support program, imports will be used to supply domestic requirements. Currently, there are no import restrictions on the amount of tung oil which can be brought into the country except that trade with Red China is under embargo. As of May 1, about 11 million pounds were under the CCC price support loan. Purchase agreements and loans on tung oil are available through June 30, 1964. The loans mature October 31, 1964, or earlier on demand by CCC.

World prices of tung oil recently dropped below the CCC price support level of 24.0 cents per pound. This is apparently due in part to exports out of Red China along with a decline in European consumption.

Nonfood Uses of Fats and Oils Increase Slightly in 1963

Domestic nonfood uses of fats and oils in calendar 1963 are placed at 4.6 billion pounds, 2 percent more than in 1962 and the largest of record. The drop in drying oil products was more than offset by a sharp rise in other industrial products. Use of fats and oils in soap, which had dropped some every year since 1950, remained in 1963 at the 1962 level. The rate in 1963 was 24.2 pounds per person compared with 24.0 pounds in 1962. The consumption rate per person had declined sharply from the postwar peak of 29 pounds in 1947, but rates since 1951 have been fairly stable at about 23-24 pounds (table 13).

See tables 14 through 20 for 1963 statistics on soap and detergents, surface coatings, and total fats and oils.

Table 13.--Nonfood products: Fats and oils used, by product, total and per person, 1925-63

Year	Soap 1/		Drying oil 2/		Other industrial 1/ 3/		Total	
	Total	Per person	Total	Per person	Total	Per person	Total	Per person
	Mil. lb.	Lb.	Mil. lb.	Lb.	Mil. lb.	Lb.	Mil. lb.	Lb.
Average								
1925-29	1,544	13.0	877	7.4	197	1.6	2,618	22.0
1930-34	1,546	12.3	585	4.7	290	2.3	2,421	19.3
1935-39	1,638	12.8	774	6.0	440	3.4	2,852	22.2
1940	1,867	14.1	807	6.1	412	3.0	3,085	23.4
1941	2,302	17.3	1,079	8.1	633	4.7	4,014	30.1
1942	2,033	15.1	973	7.2	660	4.9	3,666	27.2
1943	1,956	14.3	890	6.5	822	6.0	3,668	26.8
1944	2,215	16.0	917	6.6	856	6.2	3,989	28.8
1945	1,995	14.3	874	6.2	1,001	7.2	3,870	27.7
1946	1,762	12.5	934	6.6	879	6.2	3,575	25.3
1947	2,261	15.7	1,017	7.1	890	6.2	4,168	29.0
1948	2,060	14.1	1,081	7.4	843	5.7	3,984	27.2
1949	1,778	11.9	974	6.5	864	5.8	3,616	24.2
1950	1,822	12.0	1,178	7.8	1,177	7.7	4,177	27.5
1951	1,537	10.0	1,151	7.5	1,239	8.0	3,927	25.5
1952	1,384	8.8	1,033	6.6	1,256	8.0	3,672	23.4
1953	1,320	8.3	1,086	6.8	1,299	8.1	3,707	23.2
1954	1,197	7.4	1,018	6.3	1,370	8.4	3,585	22.1
1955	1,136	6.9	1,124	6.8	1,650	10.0	3,910	23.7
1956	1,058	6.3	1,107	6.6	1,860	11.1	4,025	23.9
1957	1,010	5.9	1,032	6.0	1,980	11.6	4,022	23.5
1958	928	5.3	934	5.4	2,198	12.6	4,060	23.3
1959	876	4.9	924	5.2	2,499	14.1	4,299	24.3
1960	872	4.8	833	4.6	2,627	14.6	4,331	24.1
1961	838	4.6	855	4.7	2,572	14.1	4,265	23.3
1962	782	4.2	876	4.7	2,804	15.1	4,462	24.0
1963 4/	782	4.1	841	4.5	2,931	15.5	4,553	24.2

1/ Fat equivalent of soap used in synthetic rubber is included in "other industrial products". Adjusted for foreign trade and changes in stocks. 2/ Paints, varnishes, floor coverings, oilcloth, printing inks, core oils, synthetic resins, insulation, linings, packings, coated fabrics, caulking and other protective coatings. 3/ Includes use of fats and oils in chemicals, lubricants and greases, animal feeds; tin and terne plate, pharmaceuticals, leather, candles, synthetic organic detergents, toilet articles, and miscellaneous industrial products. 4/ Preliminary.

Computed from unrounded numbers.

Table 14.--Nonfood products: Fats and oils used, by kind, 1925-63

Year	Inedible tallow and grease	Linseed oil	Tall oil	Coconut oil	Soybean oil	Fish and marine oil	Castor oil	Tung oil	Palm oil	Other	Total 1/
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
Average											
1925-29	746	752	---	343	7	80	55	94	146	395	2,618
1930-34	804	434	---	364	17	81	45	97	194	385	2,421
1935-39	949	517	---	345	43	131	61	118	153	535	2,852
1940	1,234	589	---	434	92	216	90	67	121	242	3,085
1941	1,649	814	41	532	124	216	157	69	185	227	4,014
1942	1,854	830	57	165	112	172	155	12	95	214	3,666
1943	1,759	768	119	195	162	195	99	12	64	295	3,668
1944	1,923	701	154	202	123	199	200	10	61	416	3,989
1945	1,839	639	190	158	133	266	164	23	72	386	3,870
1946	1,677	680	196	279	172	146	95	36	51	243	3,575
1947	1,882	575	177	661	270	168	116	106	43	170	4,168
1948	1,782	600	214	535	270	110	128	130	48	167	3,984
1949	1,666	443	186	398	321	142	130	103	42	185	3,616
1950	1,807	594	287	428	323	143	181	109	43	262	4,177
1951	1,660	699	323	380	306	131	174	61	44	149	3,927
1952	1,541	553	270	370	388	116	182	51	44	157	3,672
1953	1,568	556	280	339	368	112	169	51	39	225	3,707
1954	1,559	515	331	357	331	60	138	48	61	184	3,585
1955	1,635	526	508	364	341	68	134	51	59	223	3,910
1956	1,686	537	599	386	351	108	121	51	46	139	4,025
1957	1,815	454	560	383	321	108	138	48	42	153	4,022
1958	1,805	441	651	376	329	96	113	41	47	161	4,060
1959	1,775	459	749	458	359	91	130	48	33	197	4,299
1960	1,832	364	794	459	362	135	131	40	30	184	4,331
1961	1,737	374	774	486	342	154	123	40	37	198	4,265
1962	1,863	381	839	503	365	150	127	34	31	169	4,462
1963 2/	1,946	394	891	533	384	89	131	29	28	120	4,553

1/ Adjusted for foreign trade and change in stocks. 2/ Preliminary.

Totals computed from unrounded numbers.

Table 15.--Soap and synthetic detergents: Supply and disposition, 1935-63

Year	Supply: Estimated sales 1/: Soap 2/	Supply: Estimated sales 1/: Synthetic detergents 3/	Supply: Imports of soap	Supply: Total	Disposition: Exports and shipments of soap 4/	Disposition: Use of soap in synthetic rubber 5/	Disposition: Domestic disappearance: Military excluding relief 6/	Disposition: Domestic disappearance: Total	Disposition: Domestic disappearance: Civilian per capita: Total	Disposition: Domestic disappearance: Civilian per capita: Soap	Disposition: Domestic disappearance: Civilian per capita: Synthetic detergents
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Lb.	Lb.	Lb.
Average 1935-39	3,105	10	7	3,122	66	---	---	3,057	24	24	7/
1940	3,273	30	5	3,308	67	---	---	3,241	25	25	7/
1941	3,886	40	11	3,937	84	1	50	3,802	29	29	7/
1942	3,652	50	4	3,706	59	2	120	3,525	27	27	7/
1943	3,597	75	8	3,680	59	22	350	3,249	26	25	1
1944	4,142	125	1	4,268	52	89	400	3,727	30	29	1
1945	3,911	150	3	4,064	129	94	400	3,441	28	27	1
1946	3,085	275	8	3,368	157	72	70	3,069	23	21	2
1947	3,650	408	1	4,059	138	47	40	3,834	27	24	3
1948	3,180	636	1	3,817	92	50	34	3,641	25	21	4
1949	2,985	864	1	3,850	80	46	40	3,684	25	19	6
1950	2,958	1,443	1	4,402	76	59	40	4,227	28	19	9
1951	2,510	1,565	1	4,076	69	104	50	3,853	26	16	10
1952	2,275	1,856	1	4,132	65	88	93	3,886	26	14	12
1953	1,986	2,118	1	4,105	63	94	95	3,853	25	12	13
1954	1,751	2,468	1	4,220	59	68	85	4,008	26	11	15
1955	1,644	2,652	1	4,297	55	105	78	4,059	26	10	16
1956	1,595	2,995	1	4,591	59	117	73	4,342	27	9	18
1957	1,500	3,253	2	4,755	66	122	76	4,491	27	8	19
1958	1,406	3,354	1	4,761	39	115	68	4,539	27	8	19
1959	1,312	3,562	2	4,876	34	151	68	4,623	27	7	20
1960	1,293	3,646	2	4,941	47	157	65	4,672	27	7	20
1961	1,231	3,774	2	5,007	33	154	68	4,752	27	7	20
1962	1,230	4,000	2	5,232	30	172	81	4,949	27	6	21
1963 8/	1,211	4,120	2	5,333	31	175	76	5,051	28	6	22

1/ Based on estimates of the Soap and Detergent Association. Data are on the built, finished-weight basis. 2/ Excludes scouring cleansers and liquid soaps. 3/ Includes only those solids and liquids with end-uses and characteristics similar to soap. Excludes scouring cleansers and shampoos where possible. 4/ Beginning 1947 includes shipments in CARE packages. 5/ From Office of Rubber Reserve, R.F.C. through 1954. Estimated by ERS since then. 6/ Estimates based in part on data given in Statistical Yearbook of the Quartermaster Corps for 1947. 7/ Less than one-half pound. 8/ Preliminary.

Table 16.--Soap: Fats and oils used, by kind, 1925-63 1/

Year	Inedible tallow and greases	Whale and fish oils	Palm oil	Coconut oil	Palm kernel oil	Other hard oils 2/	Soft oils 3/	Secondary fats and oils 4/	Rosin	Tall oil	Total saponifiable materials
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
Average 1925-29	684	125	133	314	56	7	92	162	94	---	1,666
1930-34	695	107	175	332	17	4	64	171	106	---	1,670
1935-39	787	160	100	304	42	15	54	200	110	---	1,771
1940	1,043	108	85	397	5/	43	47	170	80	---	1,972
1941	1,368	76	130	484	1	35	50	190	105	---	2,438
1942	1,528	72	56	140	1	20	53	190	99	---	2,160
1943	1,360	45	33	142	2	121	27	270	120	11	2,130
1944	1,530	51	20	132	4	243	28	303	193	29	2,534
1945	1,364	114	24	59	32	152	11	364	122	30	2,273
1946	1,210	40	7	185	19	46	16	335	75	25	1,957
1947	1,526	43	1	511	5/	28	9	227	80	16	2,443
1948	1,451	35	1	417	3	25	9	181	53	18	2,193
1949	1,346	10	1	282	5/	27	10	156	40	14	1,887
1950	1,363	1	3	257	5/	66	9	174	43	13	1,929
1951	1,195	---	3	197	---	41	9	149	38	22	1,654
1952	1,084	---	3	204	5/	5	8	137	30	15	1,485
1953	1,026	5/	4	175	23	5/	6	135	20	14	1,403
1954	907	---	8	175	6	5/	5	135	19	12	1,267
1955	864	---	12	173	5	5	6	116	18	14	1,213
1956	813	5/	4	177	1	2	3	102	16	17	1,135
1957	789	---	2	173	---	1	1	98	9	12	1,086
1958	727	---	1	161	---	---	1	86	7	12	995
1959	729	---	5	144	11	---	1	34	6	23	953
1960	746	---	10	145	12	---	---	23	3	15	953
1961	721	---	---	140	14	---	---	23	5/	12	911
1962	683	---	1	141	5	---	1	19	---	10	859
1963 6/	684	---	1	150	---	---	---	16	---	9	861

1/ Prior to 1949, most of the fats and oils used in synthetic detergents are believed to have been reported as used in soap. Beginning 1949, this use of fats and oils is entirely included in "other inedible products" and thus is excluded from the figures shown in this table. 2/ Includes beef fats, vegetable tallow and babassu. 3/ Includes the following oils: Soybean, cottonseed, corn, castor, peanut, olive inedible and foots, edible olive, neatsfoot, linseed, perilla, sesame, tung and "other vegetable oils". 4/ Includes inedible animal stearine, grease (lard) oil, tallow oil, foots and other soap stock, red oil, stearic acid and other fatty acids. 5/ Less than 500,000 pounds. 6/ Preliminary.

Table 17.--Surface coatings: Production and fats and oils and plastics used, 1931-63

Year	Production of paints, varnishes, lacquers, and enamels		Use of fats and oils			Use of plastics 3/		Drying oil-plastic usage ratio
	Total 1/	Containing drying oils	Total 2/	Per gallon: All paints and varnishes	Per gallon: Containing drying oils	Total	Per gallon	
	Mil. gal.	Mil. gal.	Mil. lb.	Lb.	Lb.	Mil. lb.	Lb.	Ratio
Average:								
1931-34	201	140	474	2.4	3.4	---	---	---
1935-39	298	208	641	2.2	3.1	---	---	---
1940	336	231	652	1.9	2.8	115	.3	5.7
1941	438	303	875	2.0	2.9	189	.4	4.6
1942	405	291	775	1.9	2.7	148	.4	5.2
1943	434	313	700	1.6	2.2	249	.6	2.8
1944	473	349	694	1.5	2.0	291	.6	2.4
1945	493	358	644	1.3	1.8	309	.6	2.1
1946	586	413	683	1.2	1.7	398	.7	1.7
1947	582	399	706	1.2	1.8	453	.8	1.6
1948	577	396	766	1.3	1.9	467	.8	1.6
1949	525	349	731	1.4	1.9	519	1.0	1.4
1950	641	432	873	1.4	1.8	646	1.1	1.4
1951	590	389	887	1.5	1.9	740	1.3	1.2
1952	583	374	809	1.4	1.8	729	1.3	1.1
1953	665	381	868	1.3	2.0	803	1.2	1.1
1954	635	375	815	1.3	1.8	770	1.2	1.1
1955	719	371	842	1.2	1.8	918	1.3	.9
1956	693	371	858	1.2	1.9	825	1.2	1.0
1957	669	353	795	1.2	1.8	887	1.3	.9
1958	595	367	731	1.2	1.6	870	1.5	.8
1959	650	4/	791	1.2	4/	975	1.5	.8
1960	663	4/	716	1.1	4/	962	1.5	.7
1961	623	4/	744	1.2	4/	979	1.6	.8
1962	643	4/	763	1.2	4/	1,066	1.7	.7
1963	700	4/	734	1.0	4/			

1/ Production of surface coatings are estimates of Stanford Institute, Chemical Economic Handbook prior to 1958. Beginning in 1958 Census data represent U. S. total. 2/ Includes an estimated 90-95 percent of the oil listed by Census as used in synthetic resins which end up in protective coatings. 3/ Stanford Research Institute, Chemical Economics Handbook. 4/ Not available.

Table 18.--Fats and oils used in drying-oil products, by type of product, 1931-63

Year	Paint and varnish 1/	Floor coverings and oilcloth	Resins 1/ 2/	Other	Total	Year	Paint and varnish 1/	Floor coverings and oilcloth	Resins 1/ 2/	Other	Total
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.		Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
Average											
1931-34	474	67	---	22	562	1950	772	153	105	148	1,178
1935-39	641	95	---	38	774	1951	743	134	156	118	1,151
						1952	691	125	128	87	1,033
1940	652	112	---	43	807	1953	750	117	128	93	1,086
1941	875	137	---	68	1,079	1954	693	113	132	79	1,017
1942	775	116	---	82	973						
1943	700	76	---	114	890	1955	677	111	178	158	1,125
1944	694	85	---	138	917	1956	687	106	185	129	1,107
						1957	622	102	187	122	1,032
1945	644	79	---	151	874	1958	602	86	139	107	934
1946	683	88	---	162	934	1959	619	63	186	56	924
1947	706	142	---	169	1,017						
1948	766	167	---	149	1,081	1960	558	41	171	63	833
1949	655	148	82	89	974	1961	595	44	161	54	855
						1962	609	43	166	57	876
						1963 3/	570	30	177	62	841

1/ About 90-95 percent of the oil listed by Census as used in synthetic resins end up in protective coatings. New totals may be obtained by shifting these resins to paints and varnishes. 2/ Not available prior to 1949. 3/ Preliminary.

Totals computed from unrounded numbers.

Table 19.--Fats and oils used in drying oil products, by kind of oil, 1925-63

Year	Linseed oil	Soybean oil	Tung oil	Fish oil	Castor oil	Oiticica oil	Perilla oil	Other primary fats and oils	Secondary fatty materials	Tall oil	Total
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
Average											
1925-29	752	4	94	20	2	---	5	---	---	---	877
1930-34	433	12	97	22	2	---	17	3	---	---	585
1935-39	514	22	118	39	7	6	63	6	---	---	774
1940	585	46	67	47	25	15	20	4	---	---	807
1941	807	62	69	57	46	27	9	3	---	---	1,079
1942	819	33	12	32	63	9	3	3	---	---	973
1943	757	39	12	36	22	4	2	1	15	2	890
1944	688	37	10	47	90	11	1/	1/	27	7	917
1945	627	46	23	58	60	19	1/	3	32	7	874
1946	663	67	36	48	35	25	1/	8	39	15	934
1947	567	159	106	47	44	13	1/	6	44	32	1,017
1948	595	162	130	40	53	13	1/	7	46	36	1,081
1949	428	220	103	26	51	12	---	8	73	53	974
1950	590	213	109	33	66	12	---	24	60	70	1,178
1951	665	194	61	28	38	12	---	12	57	84	1,151
1952	536	209	51	36	41	11	---	11	50	87	1,033
1953	536	242	51	34	39	10	---	13	69	93	1,086
1954	498	209	48	23	38	8	---	16	60	116	1,017
1955	504	226	51	33	63	12	---	24	89	123	1,125
1956	513	194	51	32	73	11	---	20	67	146	1,107
1957	437	191	48	33	79	11	---	13	93	128	1,032
1958	427	158	41	30	64	10	---	12	81	111	934
1959	448	184	46	21	83	9	---	13	35	84	2/924
1960	351	172	38	49	85	15	---	7	31	86	2/833
1961	365	163	38	73	75	7	---	6	32	96	2/855
1962	374	166	32	70	77	16	---	9	28	104	2/876
1963 3/	382	179	29	25	81	5	---	5	27	108	2/841

1/ Less than 500,000 pounds. 2/ Excludes fats and oils used in fatty acids, many of which are used in drying oil products. 3/ Preliminary. Totals computed from unrounded numbers.

Table 20.--Percentage distribution of fats and oils used in drying oil products, by kind of oil, 1925-63

Year	Linseed oil	Soybean oil	Tung oil	Fish oil	Castor oil	Oiticica oil	Perilla oil	Other primary fats and oils	Secondary fatty materials	Tall oil	Total
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Average											
1925-29	85.7	.5	10.7	2.3	.2	---	.6	---	---	---	100.0
1930-34	74.0	2.1	16.5	3.7	.3	---	2.9	.5	---	---	100.0
1935-39	66.4	2.8	15.2	5.0	.9	.8	8.1	.8	---	---	100.0
1940	72.4	5.7	8.3	5.8	3.1	1.8	2.4	.5	---	---	100.0
1941	74.8	5.7	6.4	5.2	4.3	2.5	.8	.3	---	---	100.0
1942	84.2	3.4	1.2	3.3	6.4	.9	.3	.3	---	---	100.0
1943	85.1	4.4	1.3	4.1	2.5	.4	.2	.1	1.7	.2	100.0
1944	75.0	4.0	1.1	5.2	9.8	1.2	---	---	2.9	.8	100.0
1945	71.7	5.2	2.6	6.6	6.9	2.2	---	.3	3.7	.8	100.0
1946	71.0	7.1	3.8	5.1	3.7	2.6	---	.9	4.2	1.6	100.0
1947	55.8	15.6	10.4	4.6	4.3	1.3	---	.6	4.3	3.1	100.0
1948	55.0	15.0	12.0	3.7	4.9	1.2	---	.6	4.3	3.3	100.0
1949	43.9	22.6	10.6	2.7	5.2	1.2	---	.8	7.5	5.5	100.0
1950	49.5	17.9	9.1	2.8	5.5	1.0	---	2.0	6.4	5.8	100.0
1951	57.8	16.9	5.6	2.4	3.3	1.0	---	.7	5.0	7.3	100.0
1952	51.9	20.3	4.9	3.5	4.0	1.1	---	1.1	4.8	8.4	100.0
1953	49.3	22.3	4.7	3.1	3.6	.9	---	1.2	6.3	8.6	100.0
1954	48.9	20.6	4.7	2.3	3.7	.8	---	1.6	5.9	11.5	100.0
1955	44.9	20.1	4.5	2.9	5.6	1.1	---	2.1	7.9	10.9	100.0
1956	46.4	17.5	4.6	2.9	6.6	1.0	---	1.8	6.1	13.2	100.0
1957	42.8	18.6	4.2	3.2	7.1	1.1	---	1.3	9.1	12.6	100.0
1958	45.8	16.9	4.3	3.2	6.9	1.1	---	1.3	8.7	11.8	100.0
1959	48.5	19.9	5.0	2.3	9.0	1.0	---	1.4	3.8	9.1	100.0
1960	42.1	20.6	4.6	5.9	10.2	1.8	---	.8	3.7	10.3	100.0
1961	42.7	19.1	4.4	8.5	8.8	.8	---	.7	3.7	11.3	100.0
1962	42.6	18.9	3.7	8.0	8.8	1.8	---	1.0	3.3	11.9	100.0
1963 1/	45.4	21.3	3.4	3.0	9.6	.6	---	.6	3.3	12.8	100.0

1/ Preliminary.

RECENT TRENDS IN U. S. PRODUCTION, USE, AND PRICE OF MARINE OILS 1/

by
Stanley A. Gazelle

Since World War II, supplies of marine oils in the United States have shown an irregular, upward trend, increasing from a postwar low of 281 million pounds in 1947 to over 450 million pounds in recent years. Though marine oils account for less than 3 percent of the total domestic production of fats and oils (including oil equivalent of oilseeds), they are important in both the domestic and foreign markets. In recent years, about 45 percent of the U. S. marine oils have gone into domestic consumption and the other 55 percent exported (table 21). Domestically, they are used in drying oil products, in lubricant production, in animal feeds, fatty acids, and for other industrial purposes. In these industries, they compete effectively with commodities of agricultural origin, such as soybean, linseed, castor, tung, and tall oils. Medicinal marine oils, such as cod liver oil, primarily are imported items and comprise only a small part of the entire industry.

Fish meal and fish solubles are other products produced jointly with oil from certain species of marine animals. They are important ingredients used in the livestock and poultry feeding industry. Fish meal supplies have increased since the end of World War II. In 1963, supplies totaled 675,000 tons compared with 209,000 in 1946. Annual domestic production of fish meal increased from around 200,000 tons in 1946 to around 320,000 in 1955. Output remained at a high level until 1963, when it dropped to 298,000 tons. Imports of fish meal in recent years have accounted for most of the annual increase in supplies. In 1963, around 375,000 tons were imported, compared with 8,000 tons in 1946. About 80 percent of the 1963 total came from Peru. 2/

Sources of Marine Oils

There are two major sources of marine oils. Body oils, the major marine oil group in the United States, are obtained mainly from whole fish and from fish waste resulting from canning, filleting, and dressing fish. Fish liver and viscera oils, the other group, are extracted from the internal organs and

---

1/ The term "marine oils" generally refers to oils derived from marine animal life. There are several distinct classes of marine oils, such as liver oils, marine mammal oils, and fish oils, produced from a wide variety of species. Since marine oil production in the United States is dominated by one species of fish--the menhaden--this paper analyzes the oils as a single group; class divisions are held to a minimum.

2/ A comprehensive analysis of the fish meal industry is contained in the Feed Situation, FdS-197, dated February 1963. Reprints may be obtained from the Division of Administrative Service, MOS, Agricultural Economics, USDA, Washington 25, D. C. Ask for ERS-112.

Table 21.--Marine oils: Supply, disposition, and utilization, 1912-1963

Year	Supply: Production: Menhaden	Supply: Production: Total 1/	Supply: Imports 2/	Supply: Stocks Jan. 1	Supply: Total	Disposition: Exports and shipments 3/	Disposition: Domestic disappearance	Utilization: Use in shortening	Utilization: Nonfood products: Soap	Utilization: Nonfood products: Paint and varnish	Utilization: Nonfood products: Linoleum and oilcloth	Utilization: Nonfood products: Other drying oils 4/	Utilization: Nonfood products: Lubricant and similar oils	Utilization: Nonfood products: Animal feeds	Utilization: Nonfood products: Fatty acids	Utilization: Nonfood products: Other	Utilization: Nonfood products: Total
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
1912	---	43	21	---	64	9	55	---	11	---	---	11	---	---	---	33	55
1913	---	3	17	---	20	9	11	---	---	---	---	2	---	---	---	9	11
1914	---	27	23	---	50	1	49	---	16	---	---	10	---	---	---	23	49
1915	---	10	20	---	30	1	29	---	---	---	---	6	---	---	---	23	29
1916	---	35	33	---	68	1	67	---	13	---	---	13	---	---	---	41	67
1917	---	31	40	---	71	1	70	---	13	---	---	14	---	---	---	43	70
1918	---	25	30	---	55	4	51	---	6	---	---	10	---	---	---	35	51
1919	---	38	19	---	57	8	49	---	8	---	---	10	---	---	---	31	49
1920	---	54	16	48	118	3	54	---	---	---	---	11	---	---	---	43	54
1921	48	60	24	61	145	1	99	---	38	---	---	20	---	---	---	41	99
1922	55	81	51	45	177	6	120	---	91	---	---	24	---	---	---	5	120
1923	58	88	56	50	194	2	146	---	74	---	---	29	---	---	---	43	146
1924	30	70	69	46	185	1	137	---	68	---	---	27	---	---	---	42	137
1925	47	101	85	47	233	1	175	---	99	---	---	35	---	---	---	41	175
1926	31	83	93	58	234	1	165	---	112	---	---	41	---	---	---	12	165
1927	31	82	134	67	283	1	190	---	135	---	---	38	---	---	---	17	190
1928	28	92	125	92	309	1	237	15	143	---	---	47	---	---	---	32	237
1929	25	116	139	5/71	326	1	220	15	134	---	---	44	---	---	---	27	220
1930	25	111	127	5/105	344	1	180	---	114	---	---	36	---	---	---	30	180
1931	15	65	144	5/163	372	2	223	20	127	12	15	7/	---	---	---	49	223
1932	23	92	94	6/147	333	1	196	14	98	8	12	7/	---	---	---	64	196
1933	26	134	97	6/142	373	6	223	9	97	9	13	7/	---	---	---	95	223
1934	28	226	59	6/144	429	7	226	11	99	12	13	7/	---	---	---	91	226
1935	31	240	79	195	514	3	320	28	138	19	14	1	---	---	---	120	320
1936	38	301	93	192	586	2	370	40	161	24	16	1	---	---	---	128	370
1937	30	270	123	214	607	2	389	21	189	28	17	1	---	---	---	133	389
1938	32	266	85	216	567	3	305	17	146	16	14	1	---	---	---	111	305
1939	46	271	87	259	618	16	357	20	167	26	17	1	---	---	---	126	357
1940	45	188	42	245	474	4	272	11	108	31	15	1	---	---	---	106	272
1941	47	220	36	199	455	3	252	6	76	41	15	1	---	---	---	113	252
1942	40	158	64	5/202	424	10	196	6	72	23	5	4	---	---	---	86	196
1943	44	175	133	219	527	74	233	13	45	27	1	6	---	---	---	141	233
1944	47	214	38	219	470	14	225	3	51	38	2	7	---	---	---	124	225
1945	65	186	37	231	454	34	301	3	114	43	6	9	---	---	---	126	301
1946	76	153	31	119	303	15	170	1	40	36	5	7	---	---	---	81	170
1947	66	128	35	118	281	21	185	---	43	34	5	8	---	---	---	95	185
1948	68	131	81	75	286	20	132	---	35	27	5	8	---	---	---	57	132
1949	64	136	46	134	316	40	167	---	10	15	4	7	---	---	---	131	167
1950	79	166	74	109	350	77	182	8	1	21	4	8	---	---	---	140	182
1951	97	140	84	5/90	314	51	166	2	---	22	2	5	---	---	---	135	166
1952	100	124	81	8/98	304	46	165	---	---	32	1	3	---	---	---	129	165
1953	138	155	69	94	317	108	135	---	7/	31	7/	2	---	---	---	102	135
1954	144	166	53	74	293	142	83	---	---	20	1	2	---	---	---	60	83
1955	164	191	90	64	345	143	96	---	---	13	---	21	---	---	---	62	96
1956	174	207	70	105	382	144	135	---	7/	14	---	18	---	---	---	103	135
1957	122	165	60	103	328	120	129	---	---	11	---	21	---	---	---	97	129
1958	132	172	83	78	333	96	112	---	---	12	---	18	---	---	---	82	112
1959	160	195	50	126	371	147	109	---	---	3	8	10	25	22	14	27	109
1960	189	215	56	114	385	147	153	---	---	33	---	15	37	25	2	41	153
1961	243	266	77	84	427	126	168	---	---	62	2	10	38	27	13	17	168
1962	233	250	85	133	468	130	156	---	---	68	---	2	25	36	19	7	156
1963 10/	168	186	83	8/182	451	274	9/104	---	---	16	---	8	27	23	12	18	9/104
1964				8/168													
1965																	

1/ Includes Menhaden, tuna and mackerel, herring, fish liver, sperm, whale and seal oils. 2/ Includes fish livers, vitamins and drugs derived from marine animals. 3/ Includes re-exports, fish livers, vitamins and drugs. In 1947 and 1948 includes some exports under voluntary relief programs. 4/ 1912-30 assumed to equal 20 percent of total domestic disappearance. 5/ Apparent stocks. 6/ Reported stocks minus stocks in bonded warehouses. 7/ Less than 500,000 pounds. 8/ Includes government stockpile. 9/ Factory consumption used for years in which factory consumption exceeds computed domestic disappearance. 10/ Preliminary.

trimmings of various fishes. Body oils are derived mainly from such species as menhaden, herring, alewife, salmon, tuna, mackerel, whales (including sperm oil), and other lesser known types. Body oils are used predominantly as drying oils in the surface coatings industry. Menhaden oil, for instance, is highly unsaturated; it has an iodine value (the index of the drying and polymerizing properties of oils) of 140 to 180.

The main source of liver and viscera oils is from codfish and certain species of the shark family, although the most commonly known is cod liver oil. Fish liver oils are rich in vitamins A and D and this is their chief value. The synthetic production of these vitamins has curtailed materially the demand for fish liver oils in recent years. Domestic output of liver and viscera oils, though quite substantial in the 1940's, today is very small, totaling about 200 thousand pounds in 1963 (table 22).

Menhaden Fish Oil is the Leading Marine Oil in the United States

Menhaden fish are not used for human consumption mainly because they are too oily in taste and quite bony. Nevertheless, oil obtained from this fish has a significant impact upon the fats and oils economy of the United States. These high-oil content fish inhabit the coastal waters of the Atlantic Ocean from Nova Scotia to Brazil. They are caught commercially off the Atlantic and Gulf Coasts of the United States. In the fall, menhaden migrate from the North Atlantic southward. They average less than a foot in length and about two-thirds of a pound in weight.

Menhaden usually swim in large schools near the surface of the water and are caught primarily within 3 miles of the shoreline. The schools are located usually by airplanes working closely with large fishing ships. The fishing vessels, when approaching a school, release the purse boats which carry the net, or purse seine. After being caught, the menhaden are then pumped from the net into the large fishing ship. Many of these ships, especially in the Gulf, have refrigerated holds to preserve the quality of the fish. On arrival at the plant, the fish are pumped from the boats to the equipment where they are continuously cooked by pressurized steam and pressed. In processing or reduction, the entire fish is used. The economic value of menhaden lies in the important fish products of oil, meal and solubles. The total yield of the three averages about 40 percent of the weight of fish reduced.

Oil yield from menhaden averages around 9 percent, but the rate can vary widely, from less than 1 percent to nearly 50 percent. This rate varies seasonally as well as from year to year, depending upon the fishing grounds, the condition and age of the fish and many other factors. Yield of fish solubles averages around 8 percent. The recovery of meal is fairly constant at about 20 percent. Due to the high water content, yield of products from the fish processed is low when compared to yields from materials such as the vegetable oilseeds.

Oil production follows closely the annual fishing cycle and is a highly seasonal business. Production is heaviest during the summer months and tapers off sharply during the winter. Almost 90 percent of total oil output is produced

Table 22.--Marine oils: U. S. production by coasts, class and species, 1953-63

Coast, class and species	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963 *
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
Atlantic and Gulf Coasts											
Body oils:											
Menhaden	137.9	144.3	163.4	173.6	122.3	132.1	159.7	189.3	242.7	232.6	167.6
Alewife	---	---	---	.6	.8	.3	.3	.6	.1	.9	.3
Herring	1.5	1.7	.4	1.0	1.1	1.6	1.4	1.0	2/	2/	2/
Other 3/	2.7	3.4	4.4	3.9	6.2	7.1	5.5	3.6	5.6	3.1	3.2
Total	142.1	149.5	168.3	179.1	130.4	141.1	166.9	194.4	248.4	236.6	171.1
Liver and viscera oils:											
Cod	.9	1.2	1.2	2/ 1.4	4/	4/	4/	4/	2/	2/	2/
Shark	2/	2/	2/	2/ .7	2/ .2	2/ .2	2/	2/	2/	2/	2/
Other 5/	1/	.2	1/	.1	.9	.2	2/	2/	2/	2/	2/
Total	.9	1.4	1.2	2.2	1.2	.4	2/	2/	2/	2/	2/
Total oils, Atlantic and Gulf Coasts	143.0	150.9	169.5	181.3	131.5	141.5	166.9	194.4	248.4	236.6	171.1
Pacific Coast 6/											
Body oils:											
Herring	4.0	4.0	7.7	12.7	13.0	11.6	13.6	10.5	2/ 6.1	5.1	5.7
Tuna and mackerel	4.9	4.4	4.1	5.3	5.5	4.7	4.5	3.8	5.7	5.0	5.7
Whale (sperm and other)	---	---	---	---	3.3	3.2	3.9	3.3	3.5	2.6	2.1
Sardine (Pilchard)	.1	5.7	6.7	2.5	.7	5.6	1.4	1.2	.6	.2	1/
Salmon	1.6	1.4	1.1	.6	.4	.7	.3	.1	.1	.1	.6
Other 7/	2.3	1.9	1.5	4.7	2.2	2.3	1.5	1.6	1.2	.5	.4
Total	12.9	17.4	21.2	25.8	25.1	28.1	25.3	20.5	17.3	13.5	14.5
Liver and viscera oils:											
Shark	2/ .2	2/ .2	2/ .4	2/	2/	2/	2/ .2	2/ .2	2/ 4/	2/ 4/	2/ 4/
Other 8/	.5	2.3	.2	1/	1/	1/	2/ .1	2/ 1/	2/ .1	2/ 4/	2/ 4/
Total	.7	2.5	.5	1/	1/	1/	2/ .2	2/ .2	2/ .1	2/ 1/	2/ .2
Total oils, Pacific coast 6/	13.6	19.8	21.7	25.8	25.2	28.1	25.6	20.7	17.4	13.5	14.7
Total body oils, U. S.	155.1	166.8	189.4	204.9	155.5	169.2	192.3	214.9	265.8	250.1	185.6
Total liver and viscera oils, U. S.	1.6	3.9	1.7	2.2	1.2	.4	.2	.2	.1	1/	.2
Total oils, U. S.	156.6	170.7	191.1	207.1	156.6	169.5	192.5	215.1	265.8	250.1	185.8

1/ Less than 50,000 pounds. 2/ East and West Coast production combined. 3/ Includes groundfish and unclassified body oils. 4/ No longer shown separately. 5/ Includes tuna, burbot, flounder, hake, halibut, pollock, cod, swordfish, sea bass, whale and mixed liver oils. 6/ Includes Alaska, Hawaii, American Somoa and Puerto Rico. 7/ Includes anchovy, ocean perch, fur seal, bottomfish, halibut and unclassified body oils. 8/ Includes halibut, ratfish, sablefish, tuna, swordfish, ling cod, and mixed liver and viscera oils.

* Preliminary.

Totals computed from unrounded numbers. Data converted from gallons at 7.74 pounds per gallon for Atlantic and Gulf Coasts and 7.5 pounds per gallon for Pacific Coast for years 1953-61. Fish and Wildlife Service, USDI, used conversion factor of 7.5 pounds per gallon for all regions.

Compiled from official statistics of the Fish and Wildlife Service, U. S. Department of the Interior.

Table 23.--Wholesale prices of menhaden fish oil compared with prices of linseed, soybean, dehydrated castor, tung and oiticica oils, 1947-64

Year	Menhaden oil, crude, tanks, f.o.b. Baltimore	Linseed oil, raw, tank carlots Minneapolis	Soybean oil, crude, tanks, f.o.b. Decatur	Dehydrated castor oil, tanks, New York	Tung oil, domestic tanks, f.o.b. southern mills	Oiticica oil, liquid, tanks, New York	Menhaden fish oil as percentage of: Linseed oil	Soybean oil	Dehydrated castor oil	Tung oil	Oiticica oil
	Cents per lb.	Cents per lb.	Cents per lb.	Cents per lb.	Cents per lb.	Cents per lb.	Percent	Percent	Percent	Percent	Percent
1947	18.6	34.0	23.2	33.8	1/	4/26.8	55	80	55	---	69
1948	17.8	27.8	22.3	25.8	1/	20.7	64	80	69	---	86
1949	7.9	22.7	11.0	21.6	2/22.3	1/	35	72	37	35	---
1950	8.7	16.5	14.0	24.0	25.3	4/20.2	53	62	36	34	43
Average, 1947-50	13.2	25.2	17.6	26.2	3/23.8	3/22.6	52	75	50	3/35	3/66
1951	14.0	18.9	16.8	38.7	4/39.1	28.6	74	83	36	36	49
1952	7.2	15.9	11.0	34.0	4/38.0	23.9	45	65	21	19	30
1953	6.9	15.0	12.4	27.7	27.1	21.9	46	56	25	25	32
1954	7.8	14.6	13.3	21.8	23.6	16.5	53	59	36	33	47
1955	8.2	12.9	11.6	20.5	23.5	13.6	64	71	40	35	60
Average, 1951-55	8.8	15.5	13.0	28.5	30.3	20.9	57	68	31	29	42
1956	8.8	14.1	13.2	23.8	24.1	15.0	62	67	37	37	59
1957	8.9	13.6	12.2	28.2	22.6	17.2	65	73	32	39	52
1958	8.0	13.8	10.5	27.3	21.2	16.7	58	76	29	38	48
1959	7.4	13.1	9.0	25.1	22.0	19.9	56	82	29	34	37
1960	6.5	13.1	8.8	25.0	22.0	15.1	50	74	26	30	43
Average, 1956-60	7.9	13.5	10.7	25.9	22.4	16.8	59	74	31	35	47
1961	6.2	14.2	11.5	25.0	27.6	14.1	44	54	25	22	44
1962	4.6	14.2	9.0	25.1	36.9	16.9	32	51	18	12	27
1963	6.2	12.7	8.9	25.1	36.9	28.4	49	70	25	17	22
1964											
January	8.1	13.3	8.1	25.1	29.1	32.0	61	100	32	28	25
February	8.3	13.3	8.0	25.1	27.9	28.8	62	104	33	30	29
March	8.4	13.3	8.1	25.1	26.5	19.0	63	104	33	32	44
April	8.5	13.3	7.9	25.1	25.7	18.7	64	108	34	33	45

1/ Not reported. 2/ Average based on monthly prices beginning with April and for those months in which reported. 3/ For years shown. 4/ Average based on data for months reported.

between May and October. Last year, 32 plants produced 168 million pounds of menhaden oil, 90 percent of the entire U. S. production of all marine oils. Of this amount, 24 percent was produced along the North Atlantic Coast, 18 percent along the South Atlantic, and 58 percent along the Gulf (tables 24 and 25).

Marine Oil Production Concentrated Along the Atlantic and Gulf Coasts

Nearly all of the U. S. marine oils are produced along the Atlantic and Gulf coasts. The presence of menhaden in the waters off these shores primarily explains this concentration. Marine oils produced along the Pacific Coast (including American Samoa and Puerto Rico 1/) are obtained mainly from the herring, tuna, and mackerel. Smaller quantities are derived from whales, sardines, salmon, and other types. At one time, sardine oil was produced in large quantities, mostly from whole sardines diverted from canning plants when the supply of sardines exceeded demand for the canned product at a reasonable price level. Today, sardine oil output is small, due to the virtual disappearance of this species from the West Coast. A sizable portion of the oil in the Pacific region results from trimmings, particularly cannery waste of viscera heads and tails of species processed for human food consumption. The oil content of the waste materials is usually less than that of the whole fish.

Trends in Domestic Production and Use

Marine oil production in the postwar period has ranged from a low of 124 million pounds in 1952 to a high of 266 million pounds in 1961. During the 1950's, production increased rather steadily. However, the total in 1963 was down sharply, due to a poor fishing season for menhaden, and amounted to only 186 million pounds.

Domestic disappearance during this period has been irregular, ranging from 185 million pounds in 1947 to a low of 83 million in 1954. Domestic use averaged 159 million pounds in 1960-1962, but in 1963 it dropped to 104 million pounds, apparently because of increased prices for menhaden oil.

Thirty years ago, when sardine oil was more abundant, marine oils were used domestically in shortening manufacture. Use in non-food products included paints, varnishes, linoleum and other industrial commodities. Today, use in surface coatings is the major outlet. Substantial amounts are used also for lubricant production, in animal feeds, fatty acids, and miscellaneous industrial purposes. (table 21). However, use in animal feeds is limited to about 1 percent. A higher level imparts a fishy flavor to the meat of the animals fed.

Marine oil utilization in surface coatings is due to the fairly stable, moderate price and the high quality of finishes realized with fish oils. Marine oils have limitations, just as other raw materials, such as a tendency for alkyds made from fish oils to discolor on ultraviolet exposure. Nevertheless, marine oils are used in substantial volume in alkyd resins, varnishes, and paints.

1/ Marine oil output in Puerto Rico predominantly is tuna oil and is combined with Pacific Coast production.

Table 24.--Menhaden oil: U. S. production by coastal areas, 1953-63

Area	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963 *
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
North Atlantic 1/	---	---	---	88.2	64.0	44.7	59.0	60.4	85.2	76.6	39.8
South Atlantic 2/	---	---	---	26.7	21.7	35.7	32.3	32.4	36.5	35.5	30.3
Gulf 3/	---	---	---	58.7	36.6	51.7	68.4	96.5	121.0	120.5	97.5
Total	137.9	144.3	163.4	173.6	122.3	132.1	159.7	189.3	242.7	232.6	167.6

1/ Includes the States of Maine, Massachusetts, Rhode Island, New York, New Jersey, Delaware and Maryland.
2/ Includes the States of Virginia, North Carolina, South Carolina and East Coast of Florida.
3/ Includes the States of Mississippi, Louisiana, Texas and West Coast of Florida.
* Preliminary.

Compiled from official statistics of the Fish and Wildlife Service, U. S. Department of the Interior.

Table 25.--Menhaden fishery: Number of plants, fish utilized and products obtained, 1953-63

Year	Number of plants	Menhaden reduced 1/	Production of menhaden products								
			Dry scrap and meal			Oil			Solubles		
			Total	Yield per ton of fish		Total 2/	Yield per ton of fish		Total	Yield per ton of fish	
	Total	Mil. lb.	Mil. lb.	Pct.	Lb.	Mil. lb.	Pct.	Lb.	Mil. lb.	Pct.	Lb.
1953	36	1,683.4	349.5	20.8	415	137.9	8.2	164	78.1	4.6	93
1954	34	1,740.6	366.2	21.0	421	144.3	8.3	166	112.5	6.5	129
1955	35	1,848.3	381.2	20.6	412	163.4	8.8	177	100.2	5.4	108
1956	38	2,076.6	421.2	20.3	406	173.6	8.4	167	145.7	7.0	140
1957	41	1,681.6	344.8	20.5	410	122.3	7.3	145	138.8	8.2	165
1958	38	1,544.7	316.1	20.5	410	132.1	8.6	171	144.9	9.4	188
1959	37	2,193.9	447.8	20.4	408	159.7	7.3	146	216.2	9.8	197
1960	34	1,999.0	436.8	21.8	437	189.3	9.5	189	131.7	6.6	132
1961	35	2,290.9	495.1	21.6	432	242.7	10.6	212	146.6	6.4	128
1962	33	2,227.3	479.4	21.5	430	232.6	10.4	209	169.8	7.6	152
1963	32	3/1,800.0	363.5	20.2	404	167.6	9.3	186	149.7	8.3	166

1/ May include small quantities of other species.
2/ For years 1953-61, data converted from gallons at 7.74 pounds per gallon.
3/ Estimated by U. S. Department of Agriculture based on reported production for meal, oil, and solubles.

Computed data derived from unrounded numbers.
Compiled from official statistics of the Fish and Wildlife Service, U. S. Department of the Interior.

Exterior house paints use heat-bodied marine oils mixed with raw linseed oil. These marine oils are used also in aluminum paints (exterior and interior), in barn and roof paints, rust-proof coatings, and undercoat paints. In varnish manufacture, bodied fish oil is used in connection with tung oil. This outlet probably has been gaining, since the varnish industry has been taking advantage of the lower cost of fish oil to replace some of the high-priced tung oil in varnish formulations.

U. S. Marine Oils Important In World Trade

The United States accounts for around 10 percent of total world production of marine oils and ranks as a major country in world trade. Basically, this trade consists of exporting menhaden oil and importing the domestically-scarce marine items (mostly whale sperm oil, which is valuable as a lubricant for fine instruments. Because it has few economical substitutes, it is stockpiled by the Government as a strategic commodity for defense purposes).

In 1950, the United States reversed a long-term trend by becoming a net exporter of marine oils for the first time. Since then, exports have grown markedly. During 1950-1954, exports averaged 85 million pounds or about 57 percent of domestic production. In 1963, exports totaled almost 275 million pounds, a record. Europe, the leading market, takes around 90 percent of U. S. exports. The Netherlands, West Germany, Norway, Sweden, and Canada have been the major takers (table 26). However, in 1963, exports to the United Kingdom totaled 87 million pounds, the largest for any single country that year. A large part of the menhaden oil used abroad is for margarine, shortening, and other edible products. In these outlets the oils are refined, hydrogenated, and blended with other fats. Hydrogenation removes some peculiar characteristics of marine oils, such as the odor and taste associated with fish oils.

In 1950-1954, imports of marine oils averaged 72 million pounds or equal to about one-half of U. S. production. Imports in 1963 were 83 million pounds. Western Europe and Japan are the major suppliers, each accounting for about 35 percent of total imports (table 27).

Trends in Fish Oil Prices

Fish oil prices (menhaden, crude, tanks, f.o.b., Baltimore) have declined sharply since the end of World War II, from 18.6 cents per pound in 1947 to 4.6 cents in 1962. At this lower level, they were one of the lowest-priced oils on the world market. This relatively low price of fish oil gave it a comparative advantage over that of competing drying oils such as soybean, linseed, and tung oils.

U. S. production of menhaden oil dropped sharply in 1963 and monthly prices have been moving up rapidly, from 4.0 cents per pound in January 1963 to 8.5 cents in April 1964 (table 23). World output of marine oils declined sharply in 1963, due primarily to the reduced Antarctic whale catch, and was at the lowest level since 1960. Production probably will be higher in 1964 than last year and, if so, prices should recede somewhat.

Table 26.--Marine oils: U. S. exports by area and country, 1955-63 1/

Destination	1955	1956	1957	1958	1959	1960	1961	1962	1963 3/
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
North America									
Canada	23.3	4.6	2.5	13.1	4.0	10.1	17.2	11.0	8.5
Other	.4	.4	.4	.5	.6	.7	.6	.8	.7
Total	23.7	5.0	2.9	13.6	4.6	10.8	17.8	11.8	9.2
Central and South America	.2	.2	.1	.1	1.1	.4	1.4	2/	.1
Europe									
Belgium-Luxembourg	2.2	2.0	1.3	4.7	4.3	.7	1.4	3.3	2/
Denmark	---	1.7	---	---	1.2	2/	---	---	---
France	2/	---	2/	2/	.1	2/	.1	.2	.1
Germany, West	21.0	65.0	52.6	35.2	33.7	26.7	15.6	16.9	39.5
Italy	.3	.2	.4	.2	2/	2/	2/	2/	2/
Netherlands	79.3	50.0	32.1	21.8	44.1	53.1	27.9	37.9	36.0
Norway	13.5	12.5	10.5	11.6	16.1	15.9	31.3	10.0	23.7
Sweden	2/	5.3	15.4	6.8	40.7	36.1	20.6	13.4	73.6
Switzerland	1.3	.7	1.7	1.2	---	---	.1	.1	.1
United Kingdom	1.8	1.8	1.7	---	2/	2.3	8.9	33.0	86.7
Other	2/	2/	---	---	---	2/	2/	2/	3.3
Total	119.4	139.3	115.7	81.4	140.3	134.9	105.8	114.8	263.1
Africa	.1	2/	.6	2/	---	2/	.1	.1	.1
Asia									
Philippines	---	2/	2/	---	---	2/	---	2/	2/
Other	.1	2/	2/	.1	.1	.1	2/	1.6	.5
Total	.1	2/	2/	.1	.1	.1	2/	1.7	.5
Oceania	---	---	2/	---	---	2/	2/	2/	.1
Grand Total	143.5	144.5	119.4	95.3	146.1	146.1	125.3	128.5	273.0

1/ Comprised mainly of menhaden oil but includes other body oils, fish liver and viscera oils and marine mammal oils. Includes re-exports but not fish liver vitamins and drugs derived from marine animals. 2/ Less than 50,000 pounds. 3/ Preliminary.

Totals computed from unrounded numbers. When reported in gallons, data were converted to pounds at 7.5 pounds per gallon.

Table 27.--Marine oils: U. S. imports by area and country of origin, 1955-63 1/

Origin	1955	1956	1957	1958	1959	1960	1961	1962	1963 3/
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
North America									
Canada	10.1	10.2	7.8	4.4	6.5	8.3	6.6	4.9	5.1
Other	.4	.3	.2	.2	.1	.1	2/	---	---
Total	10.6	10.6	8.0	4.7	6.6	8.4	6.6	4.9	5.1
Central and South America									
Peru	7.8	8.0	5.0	11.1	14.8	18.6	14.3	9.5	22.4
Other	.1	2/	2/	2/	2/	2/	3.0	2/	1.4
Total	7.9	8.0	5.0	11.2	14.9	18.6	17.3	9.6	23.8
Europe									
Iceland	3.1	3.1	2.8	1.5	2.8	1.4	1.7	1.2	1.9
Netherlands	1.6	.6	16.2	.1	3.9	8.6	6.4	16.2	14.6
Norway	34.6	21.4	9.6	12.5	12.3	6.2	10.7	6.6	9.0
Portugal	1.0	2.1	2.7	1.8	1.8	2.1	1.5	1.4	1.4
United Kingdom	6.4	3.5	3.0	1.7	2.0	4.1	4.4	2.7	2.1
Other	.3	.3	.6	.3	.3	.1	.1	2/	2/
Total	47.0	30.9	34.8	17.9	23.0	22.5	24.9	28.1	29.0
Africa	.2	---	2/	.2	.3	.1	2/	2/	3.7
Asia									
Japan	23.1	19.8	11.8	48.4	4.3	5.8	27.1	42.0	20.3
Other	.1	.1	2/	.1	.1	2/	---	2/	---
Total	23.2	19.9	11.8	48.5	4.5	5.8	27.1	42.0	20.3
Grand Total	88.9	69.4	59.6	82.3	49.2	55.3	75.8	84.5	81.9
	Distribution of imports by class of oil								
Class of Oil	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Fish body oils	12	15	12	6	13	16	11	12	10
Fish liver and viscera oils	22	22	24	12	24	18	12	8	9
Marine mammal oils	66	63	64	82	63	66	77	80	81
Total	100	100	100	100	100	100	100	100	100

1/ Includes mainly whale sperm oil, whale oil, shark liver oils, cod liver oils, herring oil, cod oil, sod oil, and other miscellaneous oils but does not include fish livers, vitamins or drugs derived from marine animals. 2/ Less than 50,000 pounds. 3/ Preliminary.

Totals computed from unrounded numbers. When reported in gallons, data were converted to pounds at 7.5 pounds per gallon.

Production and Utilization Outlook

Future growth of the domestic marine oils industry (basically menhaden fish oil) still possesses considerable potential. Much depends upon research, both in maintaining a continued high menhaden catch and in better utilization of the oil and its derivatives. Utilization research efforts are concerned with long-chained, polyunsaturated fatty acids in such areas as protective coatings, textile chemicals, lubricating oil additives, alkyd resins, plasticizers, emulsifiers, aldehydes, and fatty alcohols. 1/

Demand for fish meal probably will outweigh demand for fish oil as a consideration for a profitable fishing operation, although a favorable export market for the oil should exist. Domestic utilization of fish oil depends greatly upon maintaining the price advantage over that of competing vegetable oils. Finally, "new products" research offers possibilities in such fields as human food products, animal feeds, and other industrial uses. To a large degree, this research in increased product utilization may hold the key to the future course of the industry.

1/ Research on fish oil utilization is being conducted at the Fishery Technological Laboratory, Division of Industrial Research and Services, U. S. Bureau of Commercial Fisheries, U. S. Department of the Interior, 2725 Montlake Boulevard, Seattle, Wash.

* * * * * *

The Fats and Oils Situation is published in January, March, May, August, and November.

The next issue is scheduled for release August 27, 1964.

Table 28.--Domestic disappearance of food and nonfood fats and oils, by end products, total and per person, year beginning October by quarters, with comparisons

Year and Quarter	Unit	Food: Butter (actual weight)	Food: Margarine (actual weight)	Food: Lard (direct)	Food: Baking and frying fats (shortening)	Food: Salad and cooking oils 1/	Food: Other edible 2/	Food: Total (fat content)	Nonfood: Soap 3/	Nonfood: Drying oils 4/	Nonfood: Other 5/	Nonfood: Total	All products (fat content)
1961-62													
Oct.-Dec:													
Total	Mil.lb.	370	457	384	631	448	---	2,129	173	257	702	1,131	3,259
Per person	Lb.	2.0	2.5	2.1	3.4	2.4	---	11.6	.9	1.4	3.8	6.1	17.7
Jan.-Mar:													
Total	Mil.lb.	352	435	355	564	538	14	2,103	216	165	683	1,065	3,168
Per person	Lb.	1.9	2.4	1.9	3.1	2.9	.1	11.4	1.2	.9	3.7	5.8	17.2
Apr.-June													
Total	Mil.lb.	345	395	299	590	540	---	2,025	220	247	691	1,158	3,183
Per person	Lb.	1.9	2.1	1.6	3.2	2.9	---	10.9	1.2	1.3	3.7	6.2	17.2
July-Sept:													
Total	Mil.lb.	306	405	289	649	548	---	2,060	204	272	646	1,122	3,183
Per person	Lb.	1.6	2.2	1.6	3.5	2.9	---	11.1	1.1	1.5	3.5	6.0	17.1
Season:													
Total	Mil.lb.	1,373	1,692	1,327	2,435	2,074	14	8,303	814	940	2,722	4,476	12,780
Per person	Lb.	7.4	9.1	7.2	13.1	11.2	.1	44.8	4.4	5.1	14.7	24.2	69.0
1962-63 6/													
Oct.-Dec:													
Total	Mil.lb.	372	476	376	704	526	10	2,303	141	192	783	1,117	3,420
Per person	Lb.	2.0	2.5	2.0	3.8	2.8	.1	12.3	.8	1.0	4.2	6.0	18.3
Jan.-Mar:													
Total	Mil.lb.	343	440	312	594	636	49	2,225	209	204	742	1,159	3,384
Per person	Lb.	1.8	2.3	1.7	3.2	3.4	.3	11.9	1.1	1.1	4.0	6.0	18.0
Apr.-June:													
Total	Mil.lb.	325	410	294	614	474	12	1,985	221	236	739	1,197	3,182
Per person	Lb.	1.7	2.2	1.6	3.3	2.5	.1	10.6	1.2	1.3	3.9	6.4	16.9
July-Sept:													
Total	Mil.lb.	291	414	246	633	663	---	2,094	212	215	699	1,126	3,220
Per person	Lb.	1.5	2.2	1.3	3.4	3.5	---	11.1	1.1	1.1	3.7	6.0	17.1
Season:													
Total	Mil.lb.	1,342	1,739	1,228	2,545	2,300	53	8,617	784	850	2,964	4,598	13,215
Per person	Lb.	7.1	9.3	6.5	13.6	12.2	.3	45.9	4.2	4.5	15.8	24.5	70.5
1963-64 6/													
Oct.-Dec:													
Total	Mil.lb.	354	474	352	671	606	172	2,471	140	183	750	1,072	3,543
Per person	Lb.	1.9	2.5	1.8	3.5	3.2	.9	13.1	.7	1.0	4.0	5.7	18.7
Jan.-Mar:													
Total	Mil.lb.	378	482	360	631	603	31	2,324	189	226	739	1,154	3,478
Per person	Lb.	2.0	2.5	1.9	3.3	3.2	.2	12.2	1.0	1.2	3.9	6.1	18.3
Apr.-June:													
Total	Mil.lb.												
Per person	Lb.												
July-Sept:													
Total	Mil.lb.												
Per person	Lb.												
Season:													
Total	Mil.lb.												
Per person	Lb.												

1/ Not reported separately prior to 1959; included in "other edible" category.
2/ Mainly salads and cooking oils prior to January 1959. Includes all oils and fats (other than butter, lard, margarine and shortening) used in mayonnaise and salad dressing, bakery goods, and confectionery, commercial roasting and frying etc.
3/ Fat equivalent of soap used in synthetic rubber is included in "other industrial products". Adjusted for foreign trade and changes in stocks.
4/ Paints, varnishes, floor coverings, oilcloth, printing inks, core oils, synthetic resins, insulation, linings, packings, coated fabrics, caulking and other protective coatings.
5/ Includes use of fats and oils in chemicals, lubricants and greases, animal feeds; tin and terne plate, pharmaceuticals, leather, candles, synthetic organic detergents, toilet articles, and miscellaneous industrial products.
6/ Preliminary.
Computed from unrounded numbers.

Table 29.--Food fats and oils: Supply and disposition, 1958-63

Total 1/

Year beginning October	Production			Stocks		Domestic disappearance			Exports		
	Oct.-Mar.	Apr.-Sept.	Oct.-Sept.	Oct. 1	Apr. 1	Oct.-Mar.	Apr.-Sept.	Oct.-Sept.	Oct.-Mar.	Apr.-Sept.	Oct.-Sept.
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
1958	6,321	5,411	11,732	683	1,227	4,306	3,993	8,300	1,443	1,881	3,324
1959	6,874	5,607	12,481	734	1,402	4,286	4,171	8,456	1,899	1,981	3,880
1960	6,939	5,417	12,356	831	1,396	4,501	4,212	8,713	1,846	1,322	3,168
1961	7,340	5,948	13,287	1,253	1,935	4,614	4,277	8,891	2,016	2,067	4,083
1962	7,610	6,208	13,818	1,512	2,253	4,691	4,179	8,870	2,157	2,184	4,341
1963	7,472			2,084	2,314	4,780			2,437		
	Butter (actual weight), except farm 2/										
1958	637	695	1,332	146	63	716	652	1,368	5	14	19
1959	659	710	1,369	93	65	673	634	1,307	16	5	22
1960	663	772	1,434	136	98	698	627	1,324	5	5	9
1961	770	781	1,550	238	303	701	629	1,329	6	13	20
1962	715	727	1,442	442	425	698	598	1,296	36	86	122
1963	676			469	276	714			156		
	Lard, except farm										
1958	1,298	1,216	2,514	46	132	924	935	1,858	288	320	608
1959	1,407	1,149	2,556	93	145	972	868	1,840	384	333	716
1960	1,206	1,139	2,345	92	141	870	955	1,825	287	225	513
1961	1,246	1,104	2,350	100	104	988	881	1,868	253	255	508
1962	1,265	1,124	2,389	73	167	952	857	1,809	219	352	571
1963	1,276			81	114	936			307		
	Beef fats 3/										
1958	179	164	343	21	30	165	160	326	5	12	18
1959	170	176	347	22	27	154	165	319	11	12	23
1960	197	222	419	27	26	192	219	411	6	4	10
1961	227	217	444	25	24	224	215	438	5	6	10
1962	227	253	480	21	47	197	261	457	4	5	9
1963	256			34	37	249			4		
	Total edible vegetable oils 4/ 5/										
1958	4,207	3,335	7,542	470	1,002	2,565	2,300	4,865	1,081	1,481	2,561
1959	4,637	3,572	8,209	527	1,165	2,528	2,550	5,078	1,447	1,585	3,031
1960	4,873	3,285	8,158	576	1,131	2,781	2,453	5,234	1,509	1,045	2,554
1961	5,097	3,845	8,943	890	1,504	2,741	2,592	5,332	1,713	1,755	3,468
1962	5,403	4,105	9,508	975	1,614	2,891	2,510	5,401	1,851	1,695	3,546
1963	5,263			1,500	1,887	2,928			1,921		

Continued -

Table 29.--Food fats and oils: Supply and disposition, 1958-63

Year beginning October	Production			Stocks		Domestic disappearance			Exports		
	Oct.-Mar.	Apr.-Sept.	Oct.-Sept.	Oct. 1	Apr. 1	Oct.-Mar.	Apr.-Sept.	Oct.-Sept.	Oct.-Mar.	Apr.-Sept.	Oct.-Sept.
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
	Cottonseed oil 5/										
1958	1,116	473	1,589	154	481	694	453	1,147	96	310	406
1959	1,318	514	1,832	190	524	643	656	1,299	341	165	506
1960	1,280	506	1,786	217	448	855	607	1,461	195	176	371
1961	1,325	627	1,952	170	478	746	607	1,352	273	201	474
1962	1,330	579	1,909	296	699	715	613	1,328	212	177	389
1963	1,329			488	802	738			277		
	Soybean oil 5/										
1958	2,853	2,607	5,460	281	476	1,676	1,628	3,304	982	1,157	2,139
1959	3,081	2,810	5,891	298	600	1,681	1,695	3,376	1,097	1,408	2,505
1960	3,331	2,520	5,850	308	625	1,714	1,616	3,329	1,300	852	2,152
1961	3,515	2,959	6,475	677	966	1,787	1,754	3,540	1,440	1,553	2,993
1962	3,816	3,258	7,074	618	842	1,954	1,668	3,622	1,638	1,512	3,150
1963	3,635			920	991	1,943			1,620		
	Corn oil										
1958	157	169	325	25	28	153	173	327	---	---	---
1959	170	174	344	24	32	162	167	329	---	---	---
1960	170	182	352	39	36	172	185	358	---	---	---
1961	186	201	386	33	50	169	201	370	---	---	---
1962	191	204	395	50	49	192	189	381	---	---	---
1963	207			63	60	210					
	Peanut oil 5/										
1958	55	57	112	7	17	42	45	87	3	14	16
1959	44	47	92	15	8	42	32	74	9	12	20
1960	65	49	114	12	22	40	45	86	14	17	31
1961	41	31	73	9	10	39	30	70	6/	6/	1
1962	45	49	94	11	25	31	39	69	6/	5	6
1963	64			30	33	37			23		

1/ Includes butter, except farm; lard, except farm; beef fats; and edible vegetable oils. Production and exports include the oil equivalent of exported oilseeds. Domestic disappearance and exports have been adjusted for exports of processed food oils not classified by kind, shortening, margarine, and other secondary fats. Exports also include shipments and quantities from CCC stocks that were not reported in Census data. Beginning 1960 exports indlude estimates of foreign donations of fats and oils not reported by Census. 2/ Beginning 1962, stocks include estimates of butter oil, ghee, and canned butter not shown in cold storage reports. 3/ Includes edible tallow, oleo stock, oleo oil and oleostearine. 4/ Includes cottonseed, soybean, corn, peanut, and edible olive oils. Production includes imports of corn, peanut, and edible olive oils. 5/ Production and exports include oil equivalent of oilseeds exported for crushing. 6/ Less than 500,000 pounds.

Totals computed from unrounded numbers.

Table 30.--Fats, oils, including their products: Production from domestic and imported materials, and factory and warehouse stocks at end of month

Item	Production 1/						Stocks			
	October-March		1963	1964			1963	1964		
	1962-63	1963-64	Mar.	Jan.	Feb.	Mar.	Mar. 31	Jan. 31	Feb. 28	Mar. 31
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
PRIMARY FATS AND OILS										
Food fats and oils										
Butter 2/	715.2	676.3	133.7	126.9	121.7	138.0	345,5	187.1	191.2	191.0
Lard and rendered pork fat 3/	1,265.0	1,276.0	208.0	232.0	192.0	210.0	166.7	105.7	124.9	113.6
Beef fats	226.6	255.8	41.3	41.7	47.1	42.1	46.9	35.7	36.4	37.4
Total edible animal fats	2,206.8	2,208.1	383.0	400.6	360.8	390.1	559.1	328.5	352.5	342.0
Corn oil	180.2	204.7	33.1	32.7	34.6	37.2	48.6	62.4	60.5	60.3
Cottonseed oil	1,327.9	1,327.6	182.6	231.4	207.4	185.8	699.2	739.8	803.7	801.6
Peanut oil	43.8	64.2	11.8	14.3	13.2	14.6	24.6	28.9	31.7	33.3
Soybean oil	2,652.1	2,427.4	451.5	388.6	376.2	368.9	842.1	1,022.4	1,006.4	991.4
Total edible vegetable oils	4,204.0	4,023.9	679.0	667.0	631.4	606.5	1,614.5	1,853.5	1,902.3	1,886.6
Soap fats and oils										
Tallow, inedible, and greases excluding wool grease 4/	1,767.6	2,032.5	307.7	363.3	336.4	335.3	434.3	387.3	421.5	395.9
Palm oil 5/	---	---	---	---	---	---	38.5	35.0	32.5	31.5
Fish and marine oil 5/	49.1	31.5	.4	.7	.2	.3	156.0	129.8	110.5	99.2
Coconut oil 5/	200.6	162.7	21.0	30.0	30.0	*	255.3	193.4	196.5	185.5
Total soap fats	2,017.3	2,226.7	329.1	394.0	366.6	335.6	884.1	745.5	761.0	712.1
Drying oils										
Castor oil 5/	---	---	---	---	---	---	239.3	220.0	220.9	215.0
Linseed oil	229.3	210.5	36.6	35.3	33.6	33.5	133.7	124.4	132.0	132.9
Safflower seed oil	65.4	13.0	---	---	---	---	63.4	62.8	58.3	59.3
Tall oil	464.0	541.9	95.0	92.9	94.8	103.4	147.6	197.1	215.5	221.7
Tung oil	6.2	18.4	.9	2.5	4.1	3.2	17.5	16.5	18.4	19.2
Total drying oils	764.9	783.8	132.5	130.7	132.5	140.1	601.5	620.8	645.1	648.1
Grand total 6/ 7/	9,193.0	9,242.5	1,523.6	1,592.3	1,491.3	1,472.4	3,659.2	3,548.3	3,660.9	3,588.8
From domestic materials	8,992.4	9,079.8	1,502.6	1,562.3	1,461.3	1,472.4				
From imported materials	200.6	162.7	21.0	30.0	30.0	*				
FAT-AND-OIL PRODUCTS										
Cooking and salad oils	1,181.7	1,134.6	225.2	175.6	199.9	211.4	220.5	137.5	124.7	119.5
Baking and frying fats (shortening)	1,309.8	1,319.8	198.7	207.1	209.8	213.0	167.2	114.2	113.4	113.9
Margarine	940.9	972.9	141.0	181.4	159.4	159.8	59.4	42.7	46.7	52.0
Fatty acids	399.6	448.5	71.2	74.9	76.4	77.4	84.0	112.1	113.9	112.7

1/ Factory production except as otherwise noted.

2/ Creamery butter and cold-storage stocks, United States Department of Agriculture.

3/ Total commercial. Excludes farm production. Federally inspected in October-March 1962-63 totaled 1,130.1 million pounds; October-March 1963-64 totaled 1,148.2 million pounds.

4/ Production as reported by Census.

5/ Stocks include GSA stockpile.

6/ Computed from unrounded numbers.

7/ Excludes estimated output of farm butter and farm lard, 113 million pounds in October-March 1962-63; 106 million pounds in October-March 1963-64.

* Not available by Census.

Table 31.--Imports and exports of fats, oils, oil-bearing materials and fat-and-oil products in terms of oil

Item	Imports for consumption					Exports 1/				
	October-March		1964			October-March		1964		
	1962-63	1963-64	Jan.	Feb.	Mar.	1962-63	1963-64	Jan.	Feb.	Mar.
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
Food fats and oils										
Butter	1.8	1.9	1.6	2/	2/	7.4	71.2	15.6	6.1	6.9
Lard	---	---	---	---	---	183.3	282.2	62.7	52.3	51.6
Beef fats	.1	1.2	---	1.1	.1	4.0	4.0	.7	1.1	.5
Total, edible animal fats	1.9	3.1	1.6	1.1	.1	194.7	357.4	79.0	59.5	59.0
Corn oil	10.5	2.7	---	---	---	---	---	---	---	---
Cottonseed oil	---	---	---	---	---	183.8	275.3	53.3	48.7	76.3
Cottonseed (17 percent)	---	---	---	---	---	2.3	1.5	.3	.5	.5
Olive oil, edible	21.8	28.2	4.6	4.7	8.0	---	---	---	---	---
Peanut oil	.7	---	---	---	---	.3	23.2	6.5	3.3	8.1
Peanuts, shelled (43.5 percent)	---	---	---	---	---	.1	.3	---	---	.3
Soybean oil	---	---	---	---	---	431.1	413.3	70.2	74.7	69.2
Soybeans (18.3 percent)	2/	2/	---	2/	2/	1,163.9	1,207.2	187.4	178.0	150.0
Other vegetable oils	6.7	7.2	1.5	.7	1.7	3.0	3.8	.6	.4	.5
Total, edible vegetable oils	39.7	38.1	6.1	5.4	9.7	1,784.5	1,924.6	318.3	305.6	304.9
Soap fats and oils										
Tallow, inedible	1.0	.8	.1	.2	.2	606.8	904.3	145.5	135.4	208.5
Greases	2/	.9	2/	.2	.2	111.3	132.7	22.6	26.8	23.2
Fish and fish liver oils non-medicinal	2.5	2.4	1.1	.4	.7	73.4	99.2	.2	23.5	.2
Marine mammal oils	34.2	19.3	3.2	.1	.4	2.5	3.1	2/	.6	2/
Olive oil, inedible	.1	.6	---	---	2/	---	---	---	---	---
Palm oil	14.7	5.3	1.6	.7	---	---	---	---	---	---
Total, slow-lathering oils	52.5	29.3	6.0	1.6	1.4	794.0	1,139.3	168.3	186.3	231.9
Coconut oil	234.8	195.9	61.1	41.6	46.1	1.1	4.7	2/	.1	.1
Copra (64 percent)	206.2	182.0	40.8	23.7	16.1	---	2/	---	---	---
Palm kernel oil	43.1	38.7	3.4	7.2	3.0	---	---	---	---	---
Total, lauric-acid oils	484.1	416.6	105.3	72.5	65.2	1.1	4.7	2/	.1	.1
Drying oils										
Flaxseed (35.7 percent)	2/	2/	---	2/	---	52.6	27.2	---	.3	.4
Linseed oil	2/	2/	---	2/	2/	8.0	11.0	.1	.1	.3
Oiticica oil	2.9	3.6	.1	.7	1.4	---	---	---	---	---
Tall oil	---	---	---	---	---	14.3	13.2	2.6	3.1	1.1
Tung oil	11.9	11.6	1.2	1.4	2.4	.9	1.3	.3	.1	.2
Total	14.8	15.2	1.3	2.1	3.8	75.8	52.7	3.0	3.6	2.0
Other industrial oils and fats										
Cashew nut shell liquid (oil)	6.5	---	---	---	---	---	---	---	---	---
Castor oil	51.5	51.0	6.2	6.9	5.8	.5	.4	.1	2/	.1
Castor beans (46.5 percent)	1.5	.3	---	---	---	---	---	---	---	---
Fish-liver oils, medicinal	8.2	10.0	1.9	2.6	2.0	.4	.3	.1	.1	2/
Rapeseed oil	2.1	2.1	.3	1.0	.5	---	---	---	---	---
Wool grease	1.9	3.1	.6	.3	.6	---	---	---	---	---
Other vegetable oils and fats, inedible	---	6.4	1.3	1.3	1.1	8.4	8.1	.7	.6	.3
Total	71.7	72.9	10.3	12.1	10.0	9.3	8.8	.9	.7	.4
Other oilseeds nec. (20 percent) 3/	---	---	---	---	---	27.2	47.2	6.4	5.8	8.9
Other products										
Margarine (fat content)	---	---	---	---	---	1.1	1.3	.3	.2	.2
Shortening	---	---	---	---	---	10.4	5.4	1.1	1.0	1.1
Cooking and salad oils	---	---	---	---	---	12.1	15.6	1.7	4.0	3.5
Salad products (fat content)	---	---	---	---	---	1.5	2.0	.4	.4	.4
Soap (fat content)	.8	.9	.1	.1	.1	4.9	4.9	.9	.8	.8
Fatty acids	1.7	2.4	.1	.6	.2	20.9	23.9	3.3	6.6	5.1
Total	2.5	3.3	.2	.7	.3	50.9	53.1	7.7	13.0	11.1
Grand total 4/	667.2	578.5	130.7	95.4	90.5	2,937.8	3,587.8	583.5	574.6	618.2

1/ Includes re-exports but not shipments. Shipments average about 90 million pounds per year of which approximately 60 million are lard.
2/ Less than 50,000 pounds.
3/ Mainly Safflower oil.
4/ Computed from unrounded numbers.

Table 32.--Index numbers of wholesale prices of fats and oils

Item	1957-59=100				
	April		1964		
	1962	1963	February	March	April
All fats and oils	92	88	89	90	90
All fats and oils, except butter	86	80	82	82	84
Grouped by origin:					
Animal fats	92	88	94	94	94
Vegetable oils, domestic	95	85	75	76	76
Vegetable oils, foreign	86	94	89	91	94
Grouped by use:					
Butter	98	98	98	98	98
Butter, seasonally adjusted	102	102	96	96	102
Lard	80	71	88	85	87
Food fats other than butter	87	79	79	79	80
Food fats other than butter and lard	91	82	75	76	76
All edible fats and oils	94	90	90	90	90
Soap fats	76	75	82	85	87
Drying oils	111	102	94	93	92
Other industrial	78	77	79	81	83
All industrial	85	82	86	88	90
Edible vegetable oils, grouped by degree of processing:					
Crude	91	83	74	75	75
Refined	95	84	75	76	77
End products	102	87	88	88	88
Margarine	102	93	93	93	93

All indexes except "Butter, seasonally adjusted" and "Other industrial" from Bureau of Labor Statistics.

Table 33.--Prices received by farmers and prices at terminal markets for specified oil-bearing materials and oilmeals

Item	Unit	April		1964		
		1962	1963	February	March	April
		Dollars	Dollars	Dollars	Dollars	Dollars
Copra, Philippines, c.i.f. Pacific Coast	Short ton	156.12	168.75	169.38	174.38	180.00
Cottonseed, United States average	Short ton	---	---	48.70	46.30	---
Flaxseed, No. 1, Minneapolis	Bushel	3.65	3.07	3.10	3.14	3.09
Flaxseed, United States average	Bushel	3.27	2.79	2.79	2.85	2.81
Peanuts, No. 1, shelled, Spanish, Southeastern shipping points 1/	100 lb.	18.88	18.62	20.25	21.12	21.50
Peanuts, United States average	100 lb.	11.20	11.10	11.60	11.40	11.20
Soybeans, No. 1, Yellow, Chicago	Bushel	2.56	2.61	2.70	2.69	2.62
Soybeans, No. 1, Yellow, Illinois country shipping points	Bushel	2.48	2.55	2.65	2.63	2.53
Soybeans, United States average	Bushel	2.38	2.45	2.57	2.55	2.45
		Oilseed Meals (Bulk)				
Copra meal, 20 percent protein, Los Angeles	Short ton	76.00	82.00	78.00	78.00	78.00
Cottonseed meal, 41 percent protein, Memphis	Short ton	56.60	61.50	63.80	60.60	57.90
Cottonseed meal, 41 percent protein, Chicago	Short ton	64.30	70.80	72.30	68.90	66.60
Cottonseed meal, 41 percent protein, Atlanta	Short ton	63.50	70.20	71.20	66.20	63.10
Linseed meal, 34 percent protein, Minneapolis	Short ton	64.50	57.00	57.00	55.50	54.80
Linseed meal, 34 percent protein, New York	Short ton	83.50	79.00	77.80	73.40	73.10
Peanut meal, 45 percent protein, f.o.b. Southeastern mills	Short ton	59.30	59.20	63.10	59.10	60.20
Safflower meal, 20 percent solvent, San Francisco	Short ton	30.00	38.00	33.50	32.00	32.25
Soybean meal, 44 percent protein, Chicago	Short ton	66.30	72.00	78.75	77.60	74.00
Soybean meal, 44 percent protein, Decatur	Short ton	62.50	68.30	74.80	73.40	69.90
Soybean meal, 44 percent protein, Atlanta	Short ton	70.70	76.30	82.80	82.70	78.70
Soybean meal, 44 percent protein, Memphis	Short ton	63.80	69.00	76.50	77.10	71.90

1/ This price applies to peanuts for edible uses.

Compiled from Oil, Paint, and Drug Reporter, Daily Market Record (Minneapolis), Wall Street Journal, Chicago edition, reports of the Statistical Reporting Service and the Agricultural Marketing Service.

U. S. Department of Agriculture
Washington, D. C. 20250.

OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U. S. Department of Agriculture

NOTICE
If you no longer need this publication, check here ☐ return this sheet, and your name will be dropped from the mailing list.

If your address should be changed, write the new address on this sheet and return the whole sheet to:
Division of Administrative Services (ML)
Office of Management Services
U. S. Department of Agriculture
Washington, D. C. 20250.

List of Tables

Table	Title	Page
1	Wholesale and retail prices per pound for fats and oils	2
2	Soybeans, oil and meal: Supply and disposition, 1956-64	7
3	Cottonseed, oil and meal: Supply and disposition, 1956-64	9
4	CSO & SBO: Dollar and Food for Peace Exports, 1961-63	11
5	Food fats: Supply and disposition, 1955-64	12
6	Corn oil: Supply and disposition, 1947-63	14
7	Corn oil: Utilization, 1947-63	14
8	Lard: Supply and disposition, 1956-64	16
9	Butter: Supply and disposition, 1956-64	16
10	Peanuts (kernel basis): Supply and disposition, 1935-63	18
11	Flaxseed, linseed oil and meal: Supply and disposition, 1955-63	20
12	Inedible tallow: 1963-64 Programs under P. L. 480	22
13	Nonfood products: Fats and oils used, by product, 1925-63	25
14	Nonfood products: Fats and oils used, by kind, 1925-63	25
15	Soap and detergents: Supply and disposition, 1935-63	26
16	Soap: Fats and oils used, by kind, 1925-63	26
17	Surface coatings: Production and fats, oils, and plastics used, 1931-63	27
18	Fats and oils in drying oil products, by product, 1931-63	27
19	Fats and oils in drying oil products, by oil, 1925-63	28
20	Percentage distribution of fats and oils in drying oil products, 1925-63	28
21	Marine oils: Supply, disposition, and utilization, 1912-63	30
22	Marine oils: U. S. production by coasts, class, and species, 1953-63	32
23	Wholesale prices of menhaden oil compared with others, 1947-64	32
24	Menhaden oil: U. S. production by coastal areas, 1953-63	34
25	Menhaden fishery: Number of plants, fish utilized and products obtained, 1953-63	34
26	Marine oils: U. S. exports by area and country, 1955-63	36
27	Marine oils: U. S. imports by area and country, 1955-63	36
28	Domestic disappearance of fats and oils, by quarters, 1961-63	38
29	Food fats: Supply and disposition, 1958 to date	39
30	Fats and oils: Monthly production and stocks	41
31	Fats and oils: Monthly imports and exports	42
32	Index numbers of wholesale prices of fats and oils	43
33	Farm and terminal market prices for oilseeds and oilmeals	43